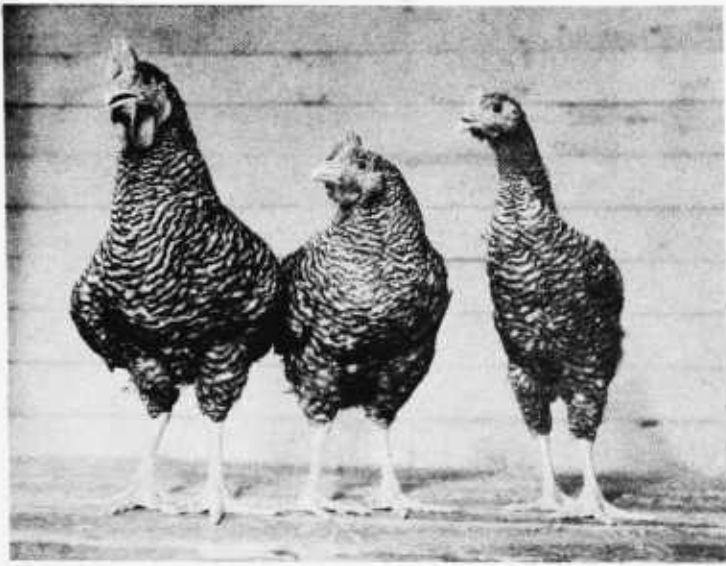


Rev. May
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See also
Supplement May 1952
of Poultry

Poultry Grading MANUAL



**Agriculture
Handbook
No. 31**

**UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION
POULTRY BRANCH**

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Cover: Top (left to right), live fryers of A, B, and C quality; bottom, the same birds dressed.

SUPPLEMENT NO. 1 TO AGRICULTURE HANDBOOK NO. 31--
POULTRY GRADING MANUAL.

The regulations governing official grading and inspection programs, and the United States classes, standards, and grades for poultry have been changed by an amendment of April 24, 1952. As a result of this amendment, the following changes should be made in the Poultry Grading Manual.

The class names of turkeys (p. 3 of the Manual) have been changed to read as follows:

Fryer or Roaster; Young Hen Turkey; Young Tom Turkey; Hen Turkey; and Tom Turkey

The class name of Roasting Duckling (p. 4) has been changed to "Roaster Duckling."

The description of the amount of fat covering (item 3, p. 25) has been changed as follows:

In the paragraph beginning "An A Quality poultry carcass," delete from lines 2 and 3 the words "turkey fryers," and insert at the end of the first sentence the following sentence: "A turkey fryer or roaster may be somewhat lacking in fat covering."

The description of the "pinfeather factor" for A, B, and C Qualities (p. 26) has been changed to read as follows:

"An A Quality dressed poultry carcass is practically free from pinfeathers and vestigial feathers, especially on the breast. A ready-to-cook carcass is free from protruding pinfeathers and practically free from nonprotruding pinfeathers and vestigial feathers, especially on the breast.

"A B Quality dressed poultry carcass may have not more than a slight scattering of pinfeathers and vestigial feathers over the entire carcass and only relatively few on the breast. Ready-to-cook poultry is free from protruding pinfeathers but may have not more than a few scattered nonprotruding pinfeathers and vestigial feathers.

"A C Quality dressed poultry carcass may have numerous pinfeathers and vestigial feathers scattered over the entire carcass. However, a ready-to-cook poultry carcass is free from protruding pinfeathers but may have a few vestigial feathers and may have nonprotruding pinfeathers that do not seriously detract from the appearance of the carcass."

The following changes should be made in paragraph 3, page 30:

Delete the fifth and sixth sentences and substitute therefor the following sentences:

"Chicken broilers and fryers and young tom turkeys, on the other hand, can have a moderate covering of fat, and turkey fryers or roasters may be somewhat lacking in fat. The bird is practically free of pinfeathers and hair and, if ready-to-cook, is free of protruding pins."

Change the eighth sentence to read as follows:

"No broken bones are present excepting in broilers or fryers for which one nonprotruding broken wing bone is allowed."

The term "condition" as used in Parts II and III is broad in scope and covers the characteristics of live and processed poultry which relate to the wholesomeness of the poultry as well as to the state of preservation, soundness, and cleanliness. However, the meaning of "condition" when used in Part IV of the Manual is limited by the definition (70.1(i)) set forth in the USDA regulations governing official grading and inspection programs.

POULTRY GRADING MANUAL

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PART I

INTRODUCTION

This manual was prepared to aid in obtaining uniform application of the United States Specifications for Classes, Standards, and Grades of Poultry. Although designed primarily for those in or entering poultry-grading work, it should prove useful to those teaching poultry marketing and to the poultry industry.

For student graders to understand the proper grading of poultry for condition and quality, it is essential to have some knowledge of the structure of the bird, as well as to know the different classes of poultry and the terminology used to designate these classes. With these objectives in mind, the information set forth in this manual should prove helpful.

Anatomy and Physiology

Graders and others who have had considerable experience with poultry are sufficiently familiar with the anatomy and physiology of the bird to understand the connection between its structure and certain grading factors. Therefore, a discussion of the bird's anatomy and physiology will not be undertaken in this manual.

The beginner in grading work should have a basic understanding of structure so that he may better understand the proper grading of poultry for condition and quality. It is therefore recommended that the beginner read the references numbered (25) and (37) under Selected References for Further Study in Part VII, as well as applicable parts of any modern text on poultry diseases.

General Application of Standards and Grades

Standards of quality are used as a basis for the development of grades. The United States specifications for standards of quality for poultry were not only used as a basis for establishing the U. S. specifications for grades but they have been used in developing State standards and grades, and commercial grades. Standards of quality are often used by producers as a basis for the sorting or selecting of birds for market. Processors use standards of quality as a basis for the selection of live birds for processing.

U. S. standards and grades are permissive, that is, they may or may not be used, according to the desire of the individual producer or processor. However, if poultry is graded by a Federal-State grader, the U. S. standards and grades are used as the basis of performing the grading. (See Part IV.)

Some State departments of agriculture, authorized by their States to establish and maintain standards and grades for farm products, adopt the Federal standards and grades for poultry. Any grading done by graders of such States, therefore, would be conducted on the basis of Federal standards and grades. Other State departments of agriculture adopt the Federal standards and grades on a modified scale. In that case the State graders use the State grades.

Federal standards are often used by commercial firms as the basis for buying and selling poultry, or in settling disputes that may arise in such transactions. On the other hand, some commercial firms adopt their own standards and grades for buying and selling, although many of these are based on the U. S. standards and grades for poultry.

A few States provide a voluntary grading and inspection service. Upon request, they investigate the quality, condition, grade, or other classification of dressed and ready-to-cook poultry and issue certificates covering the grading work. For this purpose, they may use their own or the Federal standards and grades.

Classes of Poultry

"Kind" refers to the different species of poultry, such as chickens, turkeys, ducks, geese, guineas, and pigeons. For purposes of grading, "class" refers to birds of the same kind, such as fryers and roasters, which are grouped together because of similar essential physical characteristics.

The Voluntary Poultry Regulations of the United States Department of Agriculture contain specifications for kinds and classes of live, dressed, and ready-to-cook poultry. The specifications which are presented in the following pages are now used rather generally to classify poultry in the markets of the United States:

Chickens

1. FRYER OR BROILER. A fryer or broiler is a young chicken (usually under 16 weeks of age), of either sex, that is tender-meated with soft, pliable, smooth-textured skin, and flexible breastbone cartilage.

2. ROASTER. A roaster is a young chicken (usually under 8 months of age), of either sex, that is tender-meated with soft, pliable, smooth-textured skin, and breastbone cartilage that is somewhat less flexible

than that of a broiler or fryer.

3. CAPON. A capon is an unsexed male chicken (usually under 10 months of age) that is tender-meated with soft, pliable, smooth-textured skin.

4. STAG. A stag is a male chicken (usually under 10 months of age) with coarse skin, somewhat toughened and darkened flesh, and considerable hardening of the breastbone cartilage. Stags show a condition of fleshing and a degree of maturity intermediate between that of a roaster and a cock or old rooster.

5. HEN, OR STEWING CHICKEN, OR FOWL. A hen, or stewing chicken, or fowl, is a mature female chicken (usually more than 10 months of age) with meat less tender than that of a roaster and nonflexible breastbone.

6. COCK, OR OLD ROOSTER. A cock, or old rooster, is a mature male chicken with coarse skin, toughened and darkened meat, and hardened breastbone.

Turkeys

1. FRYER. A fryer is a young turkey (usually under 16 weeks of age), of either sex, that is tender-meated with soft, pliable, smooth-textured skin, and flexible breastbone cartilage.

2. YOUNG HEN TURKEY. A young hen turkey is a young female (usually under 8 months of age) that is tender-meated with soft, pliable, smooth-textured skin, and breastbone cartilage that is somewhat less flexible than that in a turkey fryer.

3. YOUNG TOM TURKEY. A young tom turkey is a young male (usually under 8 months of age) that is tender-meated with soft, pliable, smooth-textured skin, and breastbone cartilage that is somewhat less flexible than that in a turkey fryer.

4. MATURE, OR OLD, HEN TURKEY. A mature hen turkey, or old hen turkey, is a mature female (usually over 10 months of age) with toughened flesh and hardened breastbone. It may have coarse or dry skin and patchy areas of surface fat.

5. MATURE, OR OLD, TOM TURKEY. A mature tom turkey, or old tom turkey, is a mature male (usually over 10 months of age) with coarse skin, toughened flesh, and hardened breastbone.

Ducks

1. BROILER, OR FRYER, DUCKLING. A broiler duckling, or fryer duckling, is a young duck (usually under 8 weeks of age), of either sex, that is tender-meated and has a soft bill and soft windpipe.

2. ROASTING DUCKLING. A young roasting duckling is a young duck (usually under 16 weeks of age), of either sex, that is tender-meated and has a bill that is not completely hardened and a windpipe that is easily dented.

3. MATURE, OR OLD, DUCK. A mature duck, or an old duck, is a duck (usually over 6 months of age), of either sex, with toughened flesh, hardened bill, and hardened windpipe.

Geese

1. YOUNG GOOSE. A young goose, of either sex, is tender-meated and has a windpipe that is easily dented.

2. MATURE, OR OLD GOOSE. A mature goose, or an old goose, of either sex, has toughened flesh and hardened windpipe.

Guineas

1. YOUNG GUINEA. A young guinea may be of either sex and is tender-meated.

2. MATURE, OR OLD, GUINEA. A mature, or an old, guinea may be of either sex and has toughened flesh.

Pigeons

1. SQUAB. A squab is a young pigeon of either sex and is extra tender-meated.

2. PIGEON. A pigeon is a mature bird, of either sex, with coarse skin and toughened flesh.

An experienced grader usually has little difficulty in separating the different kinds of poultry by class. An inexperienced grader who is familiar with the different breeds and varieties of poultry and the indications of age and sex may soon become proficient in determining the class to which a bird belongs. However, there are times when even an experienced grader has difficulty in determining the class of some birds. For instance, a lot of chickens may by age fall in the roaster class. At the same time, some of the males in the lot may have coarse, toughened skin and may look "staggy" generally. Into which class should they be placed, roaster or stag? Obviously, these males should be classified as stags.

An example applied to dressed poultry follows: In a lot of ducks presumed or represented to be dressed roasting ducklings, some of the birds may appear to have hardened bills and windpipes. If there is no question as to the hardness of their bills and windpipes, these few birds would be classified as mature ducks. They would not be classified with the rest of the birds, into the "roasting duckling" class.

In actual practice, different graders will occasionally have somewhat different opinions on matters such as these. The important point is that the grader must make an accurate decision based on the minimum specifications in the standards for classes. As an aid to the grader, the following factors can be used for determining age:

Indications of age in live poultry

<u>Young birds</u>	<u>Old birds</u>
Comb--In chickens, not wrinkled, points sharp.	Wrinkled, coarser, thicker, points rounded.
Bill--In ducks, not completely hardened.	Hardened.
Plumage--Fresh, glossy appearance.	May be faded, worn.
Skin--Thin, oily, fine, smooth in texture, tender-meated.	Dry, thickened, toughened, and relatively coarse.
Breastbone--Flexible cartilage. End of bone soft and pliable.	Hardened, more rigid.
Shanks--Scales on shanks smooth, small, sticking closely to leg.	Larger, rough, and slightly raised.
Spurs--On male chickens and turkeys, small and undeveloped.	Spurs gradually increase in length with age, becoming somewhat curved and sharper.
Windpipes--In ducks and geese, easily dented.	Hardened.

Some indications that may be used as an aid in determining sex are outlined below:

Indications of sex in live poultry

<u>Males</u>	<u>Females</u>
Head--Usually larger with long attachments, such as comb and wattles; coarser than that of females in texture.	Smaller, rather fine and delicate in texture compared with that of males. Hair on heads of female turkeys.

Indications of sex in live poultry (Continued)

<u>Males</u>	<u>Females</u>
Plumage--Feathers usually long and pointed at the ends. Tails, in chickens, long curved feathers. In parti-colored varieties, feathers have more brilliant colors than those of females.	Feathers inclined to be shorter and more blunt than those of the male. In chickens, the tail is without long curved feathers, less brilliant colors than males.
Body--Larger and a little coarser boned than the females.	
Spurs--Well developed in chickens and in turkeys.	

Indications of age in processed poultry

<u>Young birds</u>	<u>Old birds</u>
Bill--On ducks, not completely hardened.	Hardened.
Skin--Thin, fine, smooth in texture, soft, and pliable.	Coarse, rough in texture, dry.
Flesh--Tender-meated.	Tougher, darker.
Breastbone--Flexible cartilage, end of bone soft and pliable.	Hardened, more rigid.
Windpipes--In ducks and geese, easily dented.	Hardened.

Some indications that may be used as an aid in determining sex are outlined as follows:

Indications of sex in processed poultry

<u>Males</u>	<u>Females</u>
Head--On dressed birds, usually larger, with longer attachments, such as comb, wattles, and beard; coarser than that of females.	Smaller, rather fine and delicate as compared with that of males.

Indications of sex in processed poultry (Continued)

Males

Females

Body—Larger and coarser boned than females.

Spurs—Well developed in dressed turkeys and chickens.

PART II

GRADING OF LIVE POULTRY

Although the grading of live poultry, as such, is not commonly practiced, it is important to the producer and the buyer to know the standards of quality in selecting birds to sell or buy. Very little live poultry is officially graded by Federal-State graders.

When live poultry is graded, it is graded for class, condition, and quality. The purpose of this manual is to discuss the individual grading factors that are combined to determine the final grade of a lot of live birds and to call the attention of the grader to the practical application of standards and grades.

Determining Condition

After the class of poultry has been determined, the birds are graded for condition. Condition refers to evidences of disease or other condition which may render the birds unwholesome or unfit for human food. For purposes of instruction, the discussion in this section will be limited to the factors that indicate the presence of disease.

The term "reject" is usually applied to an individual live bird which is affected by, or shows evidence of, any disease or condition which may render the bird unfit for human food. It is therefore necessary for the grader to know, at least in general terms, what symptoms of a disease or diseases make a bird unfit for human food, or cause it to be rejected. After looking a bird over and taking any apparent symptoms into consideration, the grader must decide whether to reject it or not. This procedure requires careful judgment.

In general, the following symptoms should be watched for: Discoloration of comb or face; lameness and droopiness; greenish, yellow, brownish, or bloody diarrhea; choking, gasping or rattling in throat; doughiness of the skin; fever; abnormal growths; abnormal swellings; emaciation; and a general lack of vigor and vitality as shown by the actions of the bird. Some of these symptoms alone might not indicate a "reject." However, a combination of some of these symptoms with indications of low vitality and emaciation would almost certainly indicate a "reject."

Although it is not within the province of this publication to study poultry diseases in detail, the following list of symptoms which may indicate some common diseases for which a bird may be rejected, is given as a supplement to grading school instruction:

1. Blue or purple comb

Although this symptom can be due to several causes, it may indicate the presence of a disease called "blue comb." This disease usually occurs in late summer or fall, and is found in young chickens. The cause of the disease is unknown.

2. Grayish or brownish scabs on comb and wattles

The appearance of these scabs may indicate fowl pox. A more certain identification can be made by looking in the mouth of the bird. There may be yellowish raw patches present in the mouth and throat. In more advanced stages, these patches may appear as cheesy cankerlike nodules. Watery eyes and nostrils clogged with mucus may or may not be present.

3. Watery eyes; nostrils clogged with mucus

These symptoms may indicate coryza or common cold and roup. Sneezing, coughing, and hard breathing are common. Eyes and face may swell. Coryza in itself may not be severe enough to warrant rejection of the bird. Colds may be a part of the symptoms of other diseases which are more severe and which may detract from the sales price or in severe cases may cause all the birds in a flock to be unsalable.

4. Gasping for air, coughing, and sneezing

Gasping for air while the bird sits with head down and eyes closed is common to birds having infectious laryngotracheitis. With each breath the head is usually stretched forward and upward with the beak open. Mucous discharge from eyes and nose may be present.

Gasping, coughing, and sneezing may indicate the presence of Newcastle disease. With these symptoms, indications of nervousness may appear.

5. Paralyzed neck and wing muscles

This may be a symptom of limberneck or botulism (food poisoning). Symptoms are leg weakness, sluggishness, head and wings resting helplessly on ground. The feathers are loose and easily plucked.

6. Greatly enlarged crop

This is evidence of a cropbound condition. There is stoppage of the movement of food out of the crop. Consequently, the crop becomes enlarged and fermentation and toxicity may develop.

7. Sores around vent and disagreeable odor

These symptoms together with a whitish discharge and inflammation of the skin around the vent, with dark scabs, indicate vent gleet. The bad odor is most indicative.

8. Mass of reddish-purple tissue hanging from the vent

This is a symptom of prolapse of the oviduct, or blowout. It is caused by the laying of eggs by a bird having inflammation of the intestinal tract or oviduct.

9. Very thin emaciated birds

This condition is usually found among older birds. They may be weak and droopy. Leg weakness may occur. These symptoms may be indicative of fowl tuberculosis, some type of leukosis, or worm infestation.

10. Greatly enlarged abdomen

When this condition is present, it may indicate an internal layer, tumors, or abdominal dropsy (commonly called water-belly). The abdomen may be hard or relatively hard when tumors are present or when a bird has laid an egg, so to speak, in the abdominal cavity, or the abdominal cavity may be filled with fluid which can be disturbed when pressure is applied to the abdomen.

11. Yellow or greenish diarrhea

With this type of diarrhea, if the birds appear droopy, without appetite, and have pale combs, they are suspected of having fowl typhoid, or fowl cholera.

Other symptoms

Any kind of poultry may have worms, chickens may have coccidiosis, or turkeys may have blackhead. Chickens affected with coccidiosis usually show droopiness and depression, the wings are droopy, the feathers are ruffled, and the eyes may be closed. Diarrhea and loose droppings frequently mixed with blood are common symptoms. Although the birds eat but little, the crops are sometimes full. In later stages of the disease, the comb and wattles are pale. Leg weakness is commonly present in older birds. In severe cases, the bird may be practically paralyzed.

All the symptoms for coccidiosis in chickens apply to blackhead in turkeys, excepting that diarrhea is practically always present in turkeys and the droppings vary from a light green to a brownish color. In some cases, the skin on the heads of turkeys becomes dark.

Heavy infestations of certain worms may cause birds to become weak, unthrifty in appearance, listless, and lose weight. In some cases, weakness of the neck muscles causes the bird to lose control of the head.

The fact that some of these symptoms alone or some combinations of these symptoms do not necessarily indicate that a bird is a "reject" should be re-emphasized. It is likely, however, that birds showing some of these symptoms or combinations of these symptoms, together with a lack

of vigor, vitality, and fleshing, would be "rejects." Only by experience and study will the newcomer to grading become adept at determining the degree of health of poultry.

Individual-Quality Grading Factors

Quality refers to the inherent properties of any product which determines its relative degree of excellence. Since the aim of any poultry-grading program is to classify and group birds according to quality, the individual quality grading factors should be thoroughly understood by the grader. On these factors depend the ultimate grade of the bird that reaches the consumer.

The following factors are considered in determining the quality of an individual live bird:

- | | |
|----------------------|------------------------------------|
| 1. Health and vigor. | 4. Fleshing. |
| 2. Feathering. | 5. Fat covering. |
| 3. Conformation. | 6. Degree of freedom from defects. |

1. Health and vigor

Health and vigor are closely related to feathering, conformation, fleshing, and fat covering. The closeness and brilliancy of the plumage are indications of health and vitality. Irregularly and thinly feathered birds usually are of low vitality. Birds of good health and vigor are more likely to have good body conformation than are birds with low vitality, since low vitality ordinarily results in incomplete or faulty development, that is, certain parts of the body may grow out of proportion to other parts of the body. Plump, well-developed breast and leg muscles are usually found in a bird having good health and vigor, as compared with the thin, relatively sharp keel and thin legs of a bird of low vitality. A bird that has been in poor health for a considerable period of time or a bird that is lacking in vitality ordinarily does not have good fat covering. A bird of high vitality usually has a strong, well-proportioned head with full, round, bright, alert eyes.

Plumage of the high-vitality bird is usually glossy, shiny, and brilliant because the bird preens or preens itself by spreading oil from the preen or oil gland with its beak. The condition of the preen or oil gland, on the back of the bird just in front of the tail, can be used as an indication of vigor. This gland is likely to be full of oil in a high-vitality bird. In a low-vitality bird, this gland is shrunken and it is not likely to have any oil in it. Consequently, in such birds the plumage ordinarily appears dry, brittle, and dull.

Care must be taken in using plumage as an indication of vitality, since the plumage of high-vitality laying hens that have been in production for some time often appears to be soiled and ragged. In such cases, the plumage may be broken and soiled because of wear, but the feathers ordinarily fit close to the body.

Birds of low vitality seldom have much food in the crop, since it passes through the digestive system slowly.

The body of a high-vitality bird is usually wider and deeper than that of a low-vitality bird. In other words, the high-vitality bird has greater capacity.

In the standards of quality for live poultry, an A or No. 1 Quality bird is alert, has bright eyes, and is of good health and vigor; a B or No. 2 Quality bird is of good health and vigor; and a C or No. 3 Quality bird is frequently lacking in vigor.

2. Feathering

Ordinarily a well-feathered bird will have fewer pinfeathers than will a poorly feathered bird. As freedom from pinfeathers constitutes one of the factors of quality in dressed and ready-to-cook poultry, it deserves particular attention in grading live birds because the live birds will eventually be dressed and eviscerated. Well-feathered birds are also more attractive in appearance than poorly feathered ones. Feathers broken off at the base next to the skin of a bird may not only detract from appearance but may lower the quality of the bird after it is processed.

A bird of A or No. 1 Quality is well feathered with feathers showing luster or sheen and thoroughly covering all parts of the body. There may be a slight scattering of pinfeathers.

A bird of B or No. 2 Quality is fairly well feathered with a moderate number of pinfeathers. Fairly well feathered means that some feathers may be lacking on some parts of the body, particularly on the back.

A bird of C or No. 3 Quality may have a large number of pinfeathers over all parts of its body, and there may be a complete lack of plumage feathers on the back.

3. Conformation

Conformation refers to the general form of the body of a bird. In considering conformation, the heart girth, length and width of the back, the length and width of the breast and abdomen, and the length of the keel or breastbone, are taken into consideration individually and then as a whole.

A bird of good physical conformation has a relatively large heart girth with good length, depth, and breadth of body to permit the proper growth of the vital organs (heart, and lungs particularly) and digestive organs to maintain life and ability to take care of the extra work imposed on the bird in producing sufficient flesh and fat covering. Conformation is related to health and vigor, fleshing, fat covering, and freedom from defects.

A bird of A or No. 1 Quality is of normal physical conformation except that it may have a slightly curved breastbone or other slight abnormality in the shape of the breastbone which does not interfere with the normal distribution of the flesh. The bird may also have a slightly curved back. There may be a dent which does not exceed 1/8 inch in depth in the breastbone of a chicken. For turkeys, the depth of the dent does not exceed 1/4 inch.

A bird of B or No. 2 Quality is of normal physical conformation except that it may have a slightly crooked breastbone which does not seriously interfere with the normal distribution of the flesh. It may also have a moderately crooked back and slightly misshapen legs and wings.

A bird of C or No. 3 Quality may have definite deformities (including, but not being limited to, a crooked breastbone, hunchback, and slight crippling).

4. Fleshing

Fleshing is one of the most important factors in market poultry. In the last analysis, it is the flesh of the bird that the consumer pays for. Since the larger muscles of the body are located along the breastbone and on the thighs and legs of the bird, it is particularly important that these parts be well covered with flesh. Fleshing is closely associated with health and vigor, conformation, and fat covering. Without good health, sufficient vigor, and good conformation, a bird cannot grow normally and have enough stamina and food using ability to maintain itself and at the same time add flesh and a good fat covering.

A bird of A or No. 1 Quality has a well-developed, moderately broad, and long breast that is well fleshed throughout its entire length; and the thighs and back are well covered with flesh, typical of the age and sex of the bird.

A bird of B or No. 2 Quality is fairly well fleshed in relation to length and depth of body, and all parts of the body are fairly well covered with flesh, according to the age and sex of the bird.

A bird of C or No. 3 Quality may have a poorly developed narrow breast and thin covering of flesh over all parts of its body.

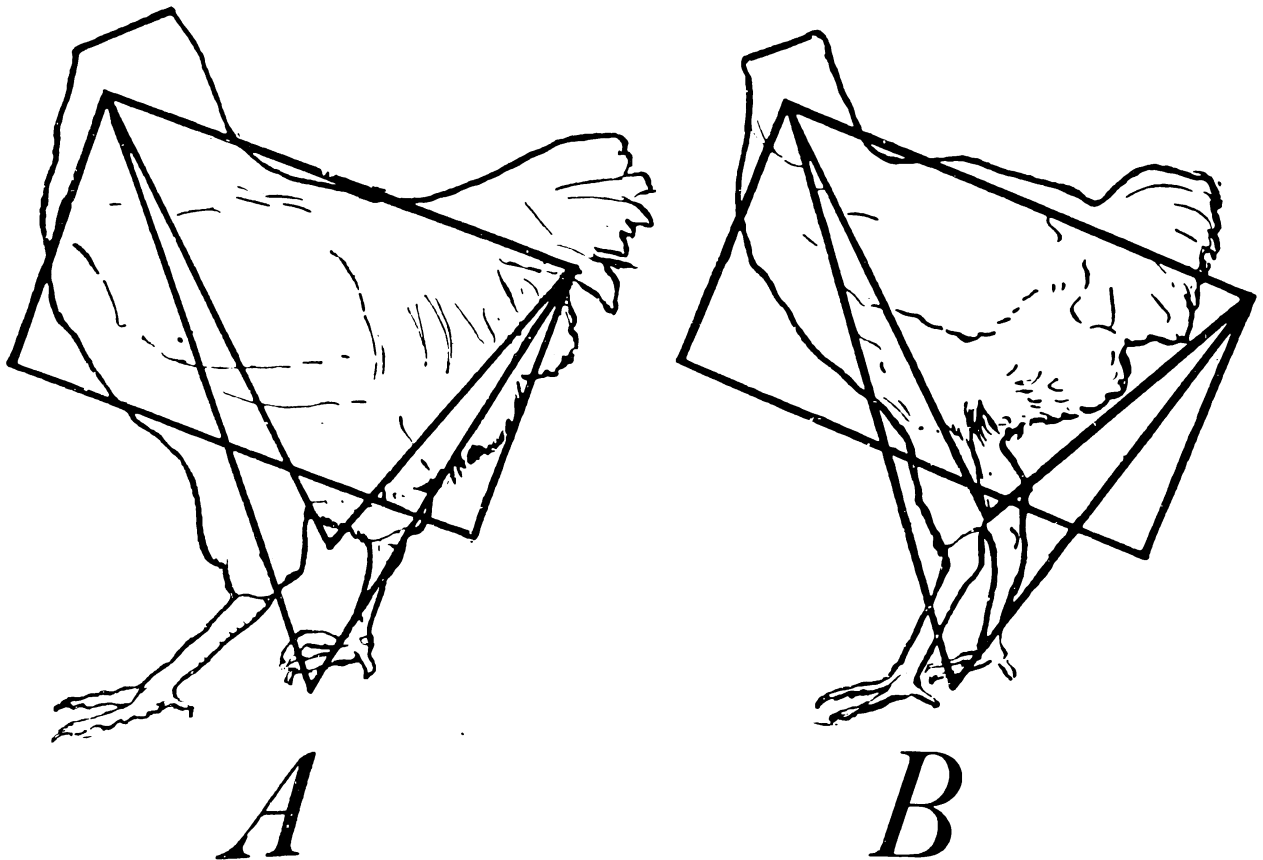


Figure 1.--A bird of normal development for the variety will more nearly fill a rectangle (A) than will a bird of low vitality (B) whose body more closely approaches the shape of a triangle.

(After Rice, Hall, and Marble: Judging Poultry for Production.)

5. Fat covering

From the standpoint of quality, flavor, texture, and tenderness in the cooked bird, fat is one of the most important factors in determining quality. For this reason, a high-quality live bird should be well covered with fat on the breast, back, hips, and pinbones. This quality factor is closely related to the three preceding factors, since a bird must have good health, vigor, and conformation in order to maintain itself and produce sufficient flesh and fat covering, if it is a good meat-type bird.

A bird of A or No. 1 Quality has its breast, back, hips, and pinbones well covered with fat, except that a fryer (whether chicken or turkey) and a young tom turkey may have only a moderate amount of fat covering these parts, and a hen, stewing chicken, or fowl does not have excessive abdominal fat.

A bird of B or No. 2 Quality has sufficient coverage of fat on breast and legs to prevent a distinct appearance of flesh through the skin; however, a hen, stewing chicken, or fowl may have excessive abdominal fat.

A bird of C or No. 3 Quality has only a small amount of fat along the feather tracts and is completely lacking in fat on back and thighs.

6. Degree of freedom from defects

Tears and broken bones not only detract from the appearance of the live bird but will lower the quality of the bird when it is processed. The number and extent of defects that are permitted in good-quality birds depend on their location. Thus, defects on the breast and thighs of a bird are more serious than those on other parts of the body.

Bruises are caused largely by rough handling. They detract from the appearance and sales value of the processed bird and are important as a factor in grading live birds.

A bird of A or No. 1 Quality is free from tears, broken bones, severe breast blisters, heavy calluses (thickened, hardened, and darkened areas of skin over the breastbone), and seriously scaly shanks; however, it may have moderate skin bruises and slight flesh bruises.

A bird of B or No. 2 Quality is free from tears and broken bones; however, it may have slight scratches, slight skin bruises, and slight calluses (slightly thickened, hardened, and darkened areas of skin over the breastbone), if these conditions do not materially affect the appearance of the bird, especially the breast. It may also have slightly scaly shanks.

A bird of C or No. 3 Quality may have large skin bruises, small or moderate flesh bruises, and severe breast blisters; however, it has no broken bones.

Combining All Grading Factors

All grading factors, that is, those of class, condition, and quality, must be combined in order to place a bird in its proper quality classification. Each kind of bird must be placed in its proper class. If the bird shows one or more factors of condition which would make it unfit for human consumption, it is rejected. After the bird is properly identified as to class, if it has not been rejected as being unfit for human consumption, it is then placed in its proper quality classification.

In placing a bird in its proper quality classification, it is important to remember that each individual quality grading factor has to be evaluated and that the final quality of the bird is established on the basis of the lowest quality grading factor. The fact should not be overlooked that defects, within the limits allowed by the standards of quality (figure 2), constitute one of the individual quality factors. Any defects other than those given in the standards of quality and which would make the bird unfit for human food are not included in the standards of quality.

Examining the Birds

With the factors of class, condition, and quality in mind, the student grader should have considerable practice in examining birds. The usual procedure is for the grader to determine the class to which a particular kind of bird belongs and its condition as he is examining the bird to classify it according to the standards of quality.

The bird should be removed from the coop, cage, or battery with as little confusion as possible. Place one hand under the bird with the breast resting on the palm of the hand and the legs held between the fingers. The other hand should be placed on the back. The bird is then removed, head first, from the coop, cage, or battery. During the examination, the bird should be held with the head toward the operator.

The bird, still resting on the palm of one hand with the fingers around the hock joints, is held in front of the operator while he is examining the head. The other hand can be used to move or turn the head in different positions. This hand is then moved along the back of the bird from the neck to the tail, with the fingers on one side of the back and the thumb on the other side. The pubic bones and abdomen are then examined. With the operator still holding the bird by the hock joints, the breast is examined. The thighs are next examined by using the free hand. By passing the free hand through the feathers against the natural direction of their growth, the operator can determine the relative number of pinfeathers.

UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION

SUMMARY OF STANDARDS OF QUALITY FOR LIVE POULTRY ON AN INDIVIDUAL BIRD BASIS
(Minimum Requirements and Maximum Defects Permitted)

FACTOR	A OR NO. 1 QUALITY	B OR NO. 2 QUALITY	C OR NO. 3 QUALITY
HEALTH AND VIGOR:	Alert, bright eyes, healthy, vigorous	Good health and vigor	Lacking in vigor
FEATHERING:	Well covered with feathers showing luster or sheen. Slight scattering of pin feathers.	Fairly well covered with feathers. Moderate number of pin feathers.	Complete lack of plumage feathers on back. Large number of pin feathers.
CONFORMATION:			
Breast bone	Normal Slight curve, 1/8" dent (chickens), 1/4" dent (turkeys)	Practically normal Slightly crooked	Abnormal Crooked
Back	Normal (except slight curve)	Moderately crooked	Crooked or hunched back
Legs and Wings	Normal	Slightly misshapen	Misshapen
FLESHING:	Well fleshed, moderately broad and long breast	Fairly well fleshed	Poorly developed, narrow breast, thin covering of flesh.
FAT COVERING:	Well covered, some fat under skin over entire carcass. Chicken fryers and turkey fryers and young toms only moderate covering. No excess abdominal fat.	Enough fat on breast and legs to prevent a distinct appearance of flesh thru skin. Hens or fowl may have excessive abdominal fat.	Lacking in fat covering on back and thighs, small amount in feather tracks.
DEFECTS:			
Tears and broken bones	Slight Free	Moderate Free	Serious Free
Bruises, scratches and callouses	Slight skin bruises, scratches and callouses	Moderate (except only slight flesh bruises)	Unlimited to extent no part unfit for food.
Shanks	Slightly scaly	Moderately scaly	Seriously scaly

STANDARDS EFFECTIVE JANUARY 1, 1950

Figure 2.--Summary of U. S. standards for live poultry.

For heavier kinds and classes of poultry, particularly turkeys, a desirable method for removing a bird from the coop, cage, or battery, is to place one hand under the bird in the manner explained above. The other hand is placed over the back of the bird, and the primary wing feathers, on the side opposite the operator, are grasped. The bird is then lifted, with a slight rolling motion (toward the operator), head first out of the container. Care should be exercised to prevent the wings from flapping and the bird from struggling, to avoid bruises and other types of injuries.

One procedure used in examining a bird, particularly one of the heavier types, such as a turkey, is to examine the head, back, abdomen, breast, and thighs. Since different satisfactory methods of examining birds are used by different operators, the grader should practice the order of examination to determine the method most suitable to his individual ability and liking.

In examining the bird, remember the factors which a high-quality bird should possess. The bird should not be diseased or show evidences of any condition which would make it unfit for human consumption. In other words, the bird should be healthy. Since the shape of the head and the type of beak are associated with the shape of the body, the head plays an important part in determining body conformation. A relatively short and broad head with a relatively short, stout, well-curved beak is associated with a compact body. The eyes should be round, prominent, bright, and alert.

The neck of a high-quality bird is usually moderate in length, since this type of neck is associated with a compact body.

The shoulders of a high-quality bird are relatively broad and are flat. The back is broad with the width carrying through to the rump. The back should be relatively well-fleshed but not too fat. Since internal fat is deposited on the ends of the pinbones, the amount of fat in the body can be determined fairly accurately by examining these bones.

The breast of the high-quality bird is relatively long, deep, wide, and round. A bird with extreme depth of breast is apt to be poorly fleshed. The breastbone is long, and straight or only slightly curved. The breastbone is well covered with flesh, which is well distributed throughout its length. Except for young tom turkeys and fryers which may have only a moderate amount of fat covering, the breast of a high-quality bird is well covered with fat.

The thighs should be of medium length and be well fleshed and the feathers on the body should be relatively short and close to the body, with only a slight scattering of pinfeathers. The bird should be well covered with feathers that show a luster or sheen.

The defects in a top-quality bird should be slight. There should be no tears and calluses or broken bones; slight skin bruises, scratches, and calluses are permitted; and the shanks can be only slightly scaly.

Grades

The difference between standards of quality and grades is not often understood. Standards of quality, which have been the basis of discussions thus far in this manual, refer to the classification of an individual bird. Each bird is classified as A, B, C, or reject.

Live poultry is handled, sold, and traded commercially on the basis of lots. One or more poultry coops would usually be considered a lot. If all the birds in a lot were alike and remained that way, the grade of that lot would be the same as the quality. Since birds are not all alike and they do not change exactly in the same manner, there are borderline classifications. Opinions and judgments of graders vary. Therefore, grades are established to take care of these variations.

When poultry is crated, it is assumed that all the birds in a coop will be of the same quality. Thus, the operator would place all A or No. 1 birds in an "A" or No. 1 coop. However, since there are human as well as natural elements of variation, grades are set up with tolerances. In the United States live poultry grades, any lot of birds may be designated as U. S. Grade A or U. S. No. 1 if at least 90 percent of the birds are of A or No. 1 quality and the remainder are of B or No. 2 quality. In like manner, any lot of birds could be classified as U. S. Grade B or U. S. No. 2 if 90 percent of the birds were of this quality or better and the remainder were of C or No. 3 quality. Any lot can be classified as U. S. Grade C or U. S. No. 3 if it is comprised of birds of not less than C or No. 3 quality.

When more than one container comprises a lot of U. S. Grade A (No. 1) or U. S. Grade B (No. 2) birds, no container shall have more birds of the next lower quality (B or C, respectively) than those specified in the following tabulation:

<u>Number of birds in a container</u>	<u>Maximum number of birds of the next lower quality</u>
Less than 10 - - - - -	1
10 to 15, inclusive - - - - -	2
16 to 20, inclusive - - - - -	3
21 to 25, inclusive - - - - -	4
26 or more - - - - -	5

The term "No Grade" or some similar term is usually applied to any lot of live poultry if such a lot contains any birds of less than C or No. 3 quality.

Laboratory Form

Laboratory No. ____ --Combining Quality Grading Factors

Name _____ Kind _____

Lot No. _____ Class _____

Quality factors <u>1/</u>	Bird number							
	:	:	:	:	:	:	:	:
1. Health and vigor	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
2. Feathering	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
3. Conformation	:	:	:	:	:	:	:	:
(a) Breastbone	:	:	:	:	:	:	:	:
(b) Back	:	:	:	:	:	:	:	:
(c) Legs and wings	:	:	:	:	:	:	:	:
4. Fleshing	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
5. Fat covering	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
6. Defects	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
(a) Tears and broken bones	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
(b) Bruises, scratches, and calluses	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
(c) Shanks	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:
Final Grade	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:

1/ Use A, B, and C, or R in each space provided for each bird opposite each quality factor. R means reject.

PART III

GRADING OF DRESSED AND READY-TO-COOK POULTRY

Dressed and ready-to-cook poultry is graded for class, condition, and quality. The purpose of Part III is to discuss the individual grading factors that are combined to determine the final grade of an individual dressed or ready-to-cook bird or a lot of dressed or ready-to-cook birds; and to call the attention of the grader to the practical application of standards and grades.

Determining Condition

After the class of poultry (Part I) has been determined, the birds are graded for condition. Condition refers to evidences of any disease, or other conditions, which may render the birds unwholesome or unfit for human food. "Other conditions" include, but are not limited to, the state of preservation, cleanliness, or soundness of poultry and the processing, handling, or packaging which affects poultry. For purposes of instruction, the discussion of condition herein will be limited to the factors that indicate the presence of disease or to other conditions which may render a bird unfit for human consumption. The conditions including the processing, handling, and packaging are discussed in Part IV under the heading "Official Grading and Inspection Programs."

Poultry carcasses which show the following conditions cannot be given any quality designation: Dirty head; bloody head; dirty carcass; bloody carcass; dirty vent; dirty feet; fan feathers on the wing tips; garter feathers; and, if the crop is not removed, feed in the crop.

A poultry carcass cannot be given an A Quality designation if it was wet-picked in such a manner that the skin has been damaged by extended immersion in, or high temperature of, the water which resulted in immediate discoloration or may result in later objectionable discoloration.

Dressed and ready-to-cook poultry showing the following external condition factors cannot be given any quality designation: Extreme emaciation; obvious evidences of disease; abdominal accumulations; evidences of anemia; or bruises in excess of those permitted in C Quality birds. The skin and flesh of birds showing evidences of disease are usually darker than normal, the combs and wattles on dressed birds may be shrunken or engorged with blood and have a dark red or purplish color, the skin may appear thin, and the skin and flesh may appear doughy. Anemic birds are identified by abnormally pale carcasses.

Abdominal accumulations refer to body cavities that are filled with fluid or cheeselike substances. When these accumulations are present, they can sometimes be determined by feeling the abdomen. The abdomen will usually be enlarged. If fluid is present in the abdomen, it will move around freely under pressure from the fingers.

Many diseases of poultry are chronic and develop slowly. A great number of abnormal conditions appear on the internal organs of birds, especially older birds. The lesions caused by tuberculosis, blackhead, ruptured ova, Newcastle disease, pullorum disease, visceral lymphomatosis, and many other conditions will be found in the abdominal organs of birds which are apparently normal from external appearances. For this reason, the internal surfaces of the abdominal cavities as well as the visceral organs of birds should be examined at the time of evisceration.

Internal evidences of disease may appear as bloody spots on or under the surfaces of such organs as the liver, spleen, heart, lungs, kidneys, ovary, and intestines. Yellowish deposits may appear within the heart sac or air sacs, or even within the substance of these organs. The organs may be smaller than normal, or shrunken, pale, dark, or discolored with greenish, brownish, or bluish shades of color. There may be white or gray spots, cream-colored growths, and numerous unusual shaped, shrunken, or swollen areas. The organs may be more firm, softer, or more mushy than normal, and they may contain firm, hard nodules (lumps, knots); or they may contain small sacs filled with fluid.

Under certain conditions, processed poultry held for even short periods of time may show evidences of decomposition. Any birds showing the following characteristics should be rejected, as they are not fit for human consumption and may be classed as adulterated under the Federal Food, Drug, and Cosmetic Act: A slippery or slimy condition of the skin especially between the wing and the body and neck; a greenish cast over the back and between the thigh and the ribs (this color should not be confused with the green or blue-green color resulting from sunburn or pigmentation that may show through the skin); mold growths anywhere on the bird, especially between the legs, or on the head and around the vent; a putrid off-odor; or a green vent, or green area surrounding the vent.

Individual-Quality Grading Factors

The following factors are considered in determining the quality of an individual carcass:

1. Conformation.
2. Fleshing.
3. Fat covering.
4. Freedom from pinfeathers.
5. Freedom from cuts, tears, and disjointed and broken bones.

6. Freedom from discolorations of skin and from flesh blemishes and bruises.

7. Freedom from freezer burn.

1. Conformation

This factor helps to determine quality, inasmuch as it governs the amount and distribution of flesh, the appearance of the bird, and the consumer utility (ease of slicing if roasted) of the carcass. The normal poultry carcass as considered in grading, is practically free from abnormalities in the skeletal structure. It is free from such deformities as a crooked, notched, or peaked breast, and from a crooked or hunched back and it has a breastbone that is practically straight and nearly parallel to the backbone.

In the standards of quality for poultry the terms "normal," "practically normal," and "abnormal" refer to A Quality, B Quality, and C Quality, respectively.

A carcass is considered normal even though it has a slightly curved breastbone or other slight abnormality in shape if it does not interfere with the normal distribution of the flesh. The normal carcass may also have a slightly curved back or a slight dent in the breastbone if this deformity does not exceed 1/8 of an inch in a chicken or 1/4 of an inch in a turkey.

A carcass is considered practically normal if it has abnormalities that do not seriously interfere with the normal distribution of the flesh. Such abnormalities include a dented, curved, and slightly crooked breastbone, a moderately crooked back, misshapen legs, and misshapen wings.

A carcass is considered abnormal if it possesses serious abnormal physical conditions, such as a crooked or peaked breastbone or a crooked or hunched back, or other serious deformity. Such carcasses are permitted in C Quality if they are at least fairly well fleshed.

2. Fleshing

One of the most important factors of value and quality is the amount of flesh that is on the carcass in relation to its skeletal size and the age of the bird.

To be classified as A Quality the bird shall have a well-developed, moderately broad, and long breast, well-fleshed throughout its entire length, with the flesh carrying well up to the crest of the breastbone so that the breastbone is not prominent. Young tom turkeys may have slight thickening or slight pouchiness of the skin on the fore part of the breast. The legs shall be well covered with flesh.

To meet the B Quality specifications for fleshing, the carcass shall be sufficiently well-fleshed on the breast and legs to prevent any appearance of thinness and prominence of the breastbone. A young tom turkey may have a pouchy, thick, and somewhat flabby skin on the fore part of the breast.

A C Quality carcass is one that is poorly fleshed and with respect to a young tom turkey the skin on the fore part of the breast may be extended, coarse, thick, and pouchy or flabby.

3. Fat covering

Perhaps the most important factor of quality from the standpoint of excellence of flavor, texture, and tenderness is the amount of fat covering or "finish" that is present in a poultry carcass.

An A Quality poultry carcass is well covered with fat over the breast, back, hips, and pinbones, except that chicken broilers or fryers, turkey fryers, and young toms may have only a moderate amount of fat covering these parts. A hen, stewing chicken, or fowl, although well covered with fat, is free from excessive abdominal fat.

A B Quality poultry carcass has sufficient coverage of fat on the breast and legs to prevent a distinct appearance of the flesh through the skin.

A C Quality poultry carcass may be lacking in fat covering over all parts of the carcass.

The determination of the amount of fat covering that is present in a carcass is one of the most difficult decisions that the inexperienced grader has to make. The amount of fat that is required for the A Quality varies considerably with the kind and class of bird. A well-finished broiler, for instance, may appear to have a relatively small amount of fat in comparison with that of a roaster or hen. Fat is deposited in the skin and between the skin and flesh of the bird in certain definite areas. There is a rather noticeable layer of fat along the two main feather tracts on each side of the body and also an interlacing of fat between these feather tracts. There is also a layer of fat, "fat collar," around the crop sac area at the fore part of the breast. If the fat collar is fairly well defined in a broiler or fryer, the bird may be considered to be well covered with fat. Many graders use this particular indicator almost exclusively in judging the fat covering or finish of poultry. Along the feather tract down the middle of the back is usually the last area on the bird where a layer of fat is put on; therefore, this layer is a good indicator of the general fat covering of the bird.

4. Freedom from pinfeathers

The presence of pinfeathers on dressed and ready-to-cook poultry is considered as one of the more important quality defects by many consumers.

Pinfeathers are of two types--those that protrude and those that do not. Vestigial feathers, hair in the case of poultry and down in waterfowl, are also considered as quality factors. Slightly more pinfeathers are permitted on dressed poultry than on ready-to-cook poultry.

An A Quality dressed poultry carcass is practically free from pinfeathers, especially on the breast, and is free from vestigial feathers. A ready-to-cook carcass is free from protruding pinfeathers and practically free from nonprotruding pinfeathers, especially on the breast, and is free from vestigial feathers.

A B Quality dressed poultry carcass may have not more than a slight scattering of pinfeathers over the entire carcass and only relatively few on the breast, and it is free from vestigial feathers. Ready-to-cook poultry is free from protruding pinfeathers and vestigial feathers and may have not more than a few scattered nonprotruding pinfeathers.

A C Quality dressed poultry carcass may have numerous pinfeathers and vestigial feathers scattered over the entire carcass. However, a ready-to-cook poultry carcass is free from protruding pinfeathers and vestigial feathers and may have nonprotruding pinfeathers only to the extent that they do not seriously detract from the appearance of the carcass.

5. Freedom from cuts, tears, and broken bones

Cuts, tears, and broken or disjointed bones detract from the appearance of the bird and, in addition, lower the quality because of bruises and blood clots which occur frequently with broken bones. Tears permit the flesh to dry out during the cooking process, thus lowering the eating quality of the bird. The number and extent of such defects that are permitted depend on their location, whether on the breast or elsewhere on the carcass. No sewn tears are permitted in any quality of bird. However, the wing tips may have been removed.

An A Quality carcass is free from cuts and tears on the breast and legs. However, elsewhere on the carcass such defects may total 1-1/2 inches in chickens and 3 inches in the case of turkeys and geese. The carcass has no disjointed or broken bones except that it may have one disjointed bone in either a leg or a wing but only if there is no evidence of a related bruise or blood clot. A chicken broiler or fryer may have one nonprotruding broken bone in the wing in addition to such disjointed bone, but only if there is no evidence of a related bruise or blood clot.

A B Quality carcass may have cuts and tears on the breast the aggregate length of which does not exceed 1-1/2 inches and elsewhere on the carcass if they do not exceed 3 inches. With respect to a turkey or goose carcass, such aggregate lengths of cuts and tears must not exceed 3 inches on the breast and 6 inches elsewhere on the carcass. The carcass

may have no more than two disjointed bones in either the legs or wings or both, but only if there is no evidence of a related bruise or blood clot; in addition, it may have one broken bone in the legs or wings if such bone is nonprotruding and does not show an excessive related bruise or blood clot.

A C Quality carcass may have torn skin, disjointed bones, and broken bones, but only if there is no evidence of a related severe bruise or blood clot.

6. Freedom from discolorations of skin and from flesh blemishes and bruises.

Discolorations and blemishes occur before and during the dressing operations and are largely due to rough handling. Discolorations and abrasions and other slight blemishes which are caused by poor dressing technique detract from the general appearance of the carcass; however, recent surveys indicate that most consumers do not consider these blemishes as very important quality factors when purchasing poultry if the skin is kept fairly moist or if the carcass is packed in moisture-repellent containers. Bruises, on the other hand, occur prior to dressing and are caused largely by rough handling during transportation of the poultry from the farm to the dressing plant. Bruises, particularly of the flesh, are an important quality factor and detract from the appearance and the sales value of the carcass.

An A Quality carcass is free from bruises and discolorations of the flesh on the breast and legs, but elsewhere on the carcass it may have bruises and discolorations of the flesh showing not more than a slightly reddened color to the extent of not more than 1/2 inch in diameter, except that a turkey or goose carcass may have such bruises and discolorations to the extent of 1 inch in diameter. The carcass may have skin bruises on the breast and legs to the extent of 1/2 inch in diameter and elsewhere on the carcass to the extent of 3/4 inch in diameter, except that a turkey or goose may have skin bruises on the breast to the extent of 3/4 inch in diameter and 1-1/2 inches elsewhere. Notwithstanding the foregoing limitations, the total aggregate area of flesh and skin bruises and other discolorations and blemishes on the breast and legs shall not exceed 1 inch in diameter and elsewhere on the carcass 1-1/2 inches in diameter, except that on turkeys and geese such areas shall not exceed 2 and 3 inches in diameter, respectively. The skin may show only slight reddening in the feather follicles on the neck near the head and on the wings because of improper bleeding.

A B Quality carcass may have flesh bruises on the breast and legs showing not more than a slightly darkened color to the extent of an aggregate area of 1/2 inch in diameter and elsewhere on the carcass such area of bruises and discolorations shall not exceed 1-1/2 inches in diameter; on turkeys and geese, however, such aggregate areas shall not exceed 1 and 3 inches in diameter, respectively. The B Quality carcass is permitted to have skin bruises on the breast and legs to the extent of 3/4 inch in diameter, and elsewhere on the carcass 1-1/2 inches in

Relative Sizes of Aggregate Areas of Discolorations
(Maximum tolerances permitted)

Dressed and Ready-to-Cook Chickens

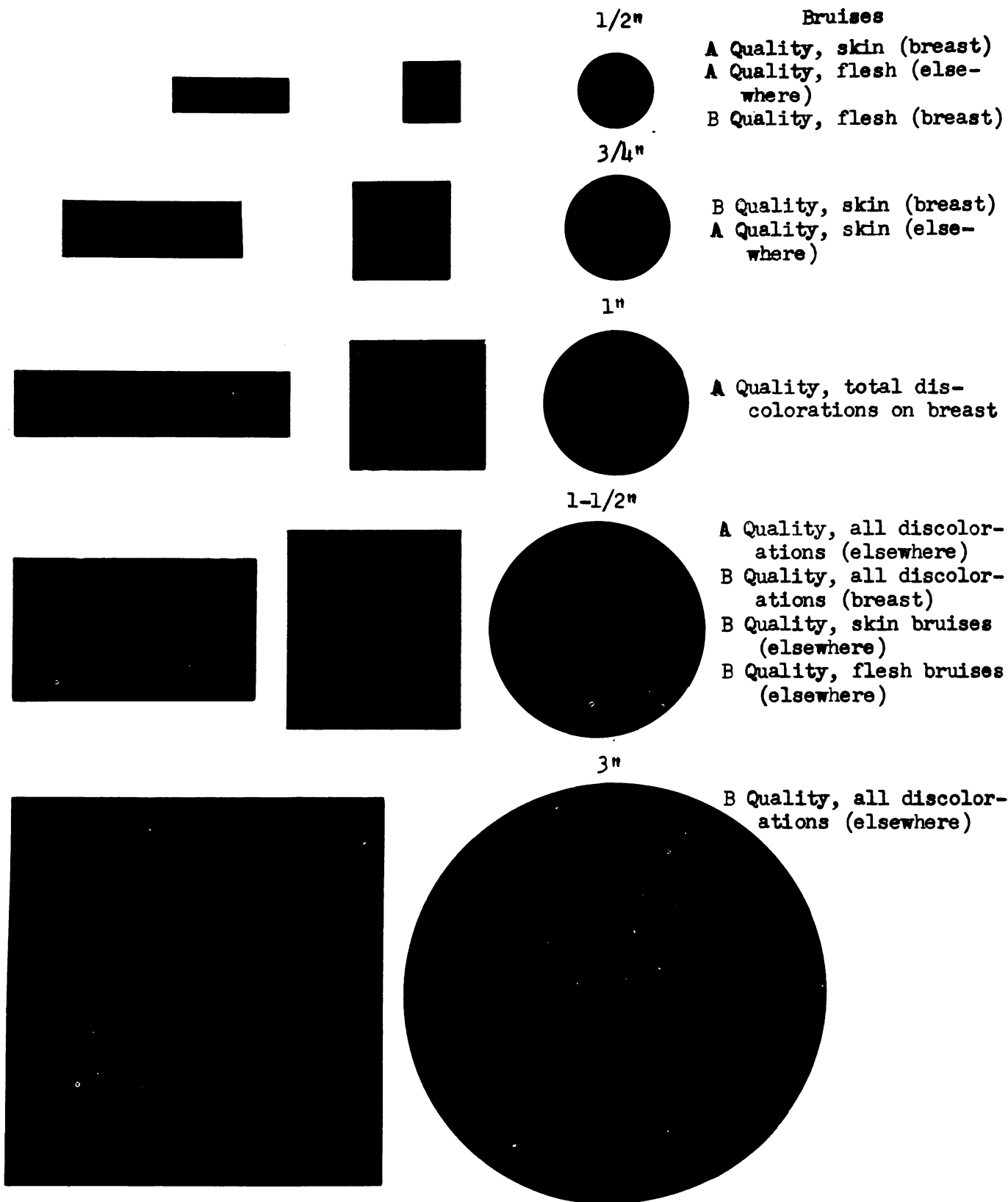


Figure 3.--Discoloration tolerances.

diameter, but for turkeys and geese, such areas may be 1-1/2 and 3 inches in diameter, respectively. The total aggregate area of discolorations and bruises on the breast and legs of poultry shall not exceed 1-1/2 inches in diameter and elsewhere on the carcass 3 inches in diameter, but for turkeys and geese, such aggregate areas shall not exceed 3 inches and 6 inches in diameter, respectively. The skin may show not more than moderate reddening in the feather follicles on the neck near the head and on the wings and thighs as a result of improper bleeding.

A C Quality carcass may have numerous and large discolored areas or blemishes on the skin which may be accompanied by some reddening and darkening of the flesh beneath, if such discolorations do not make any part of the carcass unfit for food.

7. Freedom from freezer burn

The discoloration and drying out of the skin of poultry carcasses during storage is commonly called "freezer burn." This defect detracts from the appearance and sales value of the carcass and also lowers the quality either in the case of moderate or of severe freezer burn.

An A Quality carcass shows only slight burn or evidence thereof. A few pockmarks not exceeding 1/8 inch in diameter are considered as slight freezer burn.

A B Quality carcass may show moderate freezer burn on any part of the carcass but may have no dried areas in excess of 1/2 inch in diameter.

A C Quality carcass shows more than moderate freezer burn and may have numerous pockmarks or large dried areas on any part of the carcass.

Combining All Grading Factors

All grading factors, that is, those of class, condition, and quality, are considered in determining the proper quality classification of a bird. Each kind of bird must be in its proper class. If the bird shows one or more factors of condition which would make it unfit for human consumption, it is rejected. After the bird is properly identified as to class and if it has not been rejected as being unfit for human consumption, it is placed in its proper quality classification.

In placing a bird in its proper quality classification, it is important to remember that it must be evaluated according to each individual quality grading factor and that the final quality of the bird is established on the basis of the lowest quality rating for any grading factor. Thus, if a bird is A Quality for conformation, fleshing, and fat covering, B Quality in pinfeathers and in cuts and tears, but C Quality in discolorations, the final quality designation would be "C." No quality designation

herein defined is applicable to individual birds possessing any of the following conditions: Dirty or bloody head or carcass; dirty feet or vent; fan feathers, neck feathers, or garter feathers; or feed in the crop.

Examining the Birds

After the factors of class, condition, and quality are well in mind, the student grader should grade some dressed or ready-to-cook carcasses. Whether the carcasses are lying with breasts up on tables, or hung by the feet on racks or by strings, the examination should in each case proceed in much the same way. The usual procedure is as follows:

1. Examine the entire under part of the bird (breast, legs, and neck), to get a general impression of its over-all appearance.
2. Turn the bird and examine the back for over-all appearance. To turn a dressed bird lying on a table or hanging from a rack, grasp the legs near the feet with one hand and the neck near the head with the other hand. If the bird is hanging by strings, grasp the feet where the strings are attached and twist. To turn a ready-to-cook bird, lying on a table, grasp the ends of the hock joints in one hand and shoulder end lightly with the other hand.
3. After the bird has been appraised as a whole, and an idea as to its quality classification has been established, it should be examined in greater detail for conformance to the requirements for each separate quality factor. A top-quality bird will have a normal conformation; it can have only a slight curve in the breastbone; the back can be slightly curved, but the legs and wings must be normal. It is well-fleshed, with a moderately long and broad breast, and its breastbone is not prominent. It will be well covered with fat, with some fat under the skin over the entire carcass. Chicken broilers and fryers, and fryer and young tom turkeys, on the other hand, can have only a moderate covering of fat. The bird is practically free from pinfeathers and free of protruding pins and hair. The top-quality bird is also free of cuts and tears on the breast and legs, but chickens and ducks may have cuts and tears up to an aggregate length of not more than 1-1/2 inches elsewhere on the body (turkeys and geese, an aggregate length of not more than 3 inches). No broken bones are present excepting in broilers or fryers for which one nonprotruding broken bone is allowed. The bird of top quality is free of flesh bruises on the breast and legs. Elsewhere on the body of a chicken or duck, flesh bruises are allowed to the extent of an aggregate area of a circle not over 1/2 of an inch in diameter (turkeys and geese not over 1 inch in diameter). Skin bruises and all discolorations on chickens or ducks are allowed to the extent of an aggregate area of a circle not over 3/4 and 1-1/2 inches, respectively: Such skin bruises and discolorations on turkeys and geese cannot exceed 1-1/2

UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION

SUMMARY OF SPECIFICATIONS FOR STANDARDS OF QUALITY FOR INDIVIDUAL CARCASSES
OF DRESSED AND READY-TO-COOK CHICKENS
(Minimum Requirements and Maximum Defects Permitted)

FACTOR	A QUALITY		B QUALITY		C QUALITY	
CONFORMATION:	Normal		Practically normal		Abnormal	
Breastbone	Slight curve, 1/8" dent		Dented, curved, slightly crooked		Seriously crooked	
Back	Normal (except slight curve)		Moderately crooked		Seriously crooked	
Legs and Wings	Normal		Moderately misshapen		Misshapen	
FLESHING:	Well fleshed, moderately long and broad breast		Fairly well fleshed on breast and legs		Poorly fleshed	
Breastbone	Not prominent		Not prominent		May be prominent	
FAT COVERING:	Well covered - some fat under skin over entire carcass Broilers or fryers only moderate covering		Sufficient fat on breast and legs to prevent a distinct appearance of flesh through skin		Lacking in fat covering over all parts of carcass	
PINFEATHERS:	BREAST AND LEGS	ELSEWHERE	BREAST AND LEGS	ELSEWHERE	BREAST AND LEGS	ELSEWHERE
Dressed:						
Pins and hair	Pract. free	Pract. free	Relatively few	Sl. scattering	Numerous	Numerous
Ready-to-cook:						
Non protruding pins	Pract. free	Pract. free	Few scattered	Few scattered	Scattering	Scattering
Protruding pins and hair	Free	Free	Free	Free	Free	Free
CUTS AND TEARS: 1/	Free	1-1/2"	1-1/2"	3"	No limit	
Disjointed bones	1		2		No limit	
Broken bones	None (except one non-protruding if broiler or fryer)		1 Non-protruding		No limit	
DISCOLORATIONS: 2/						
Flesh bruises	0"	1/2"	1/2"	1-1/2"	No limit 3/	
Skin bruises	1/2"	3/4"	3/4"	1-1/2"	No limit 3/	
All discolorations	1"	1-1/2"	1-1/2"	3"	No limit 3/	
FREEZER BURN	Few small (1/8" diameter) pockmarks		Moderate-dried areas not in excess of 1/2" in diameter		Numerous pockmarks and large dried areas	

The quality designations specified herein are not applicable to birds possessing any of the following conditions: dirty or bloody head or carcass, dirty feet or vent, fan feathers or neck feathers or garter feathers, or feed in the crop.

^{1/} Total aggregate length of all cuts and tears including incision for removal of the crop or its contents.

^{2/} Maximum diameter of aggregate areas of all flesh bruises, skin bruises and discolorations.

^{3/} No limit on size and number of areas of discoloration and flesh bruises if such areas do not render any part of the carcass unfit for food.

STANDARDS EFFECTIVE JANUARY 1, 1950

Figure 4.--Summary of U. S. standards for dressed and ready-to-cook chickens.

UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION

SUMMARY OF SPECIFICATIONS FOR STANDARDS OF QUALITY FOR INDIVIDUAL CARCASSES
OF DRESSED AND READY-TO-COOK TURKEYS
(Minimum Requirements and Maximum Defects Permitted)

FACTOR	A QUALITY		B QUALITY		C QUALITY	
CONFORMATION:	Normal		Practically normal		Abnormal	
Breastbone	Slight curve, 1/4" dent		Dented, curved, slightly crooked		Seriously crooked	
Back	Normal (except slight curve)		Moderately crooked		Seriously crooked	
Legs and Wings	Normal		Moderately Misshapen		Misshapen	
FLESHING:	Well fleshed, moderately long and broad breast		Fairly well fleshed on breast and legs		Poorly fleshed	
Breastbone	Not prominent		Not prominent		May be prominent	
Pouchiness	Slight		Definite		Extended	
FAT COVERING:	Well covered - some fat under skin over entire carcass. Fryers and young toms only moderate covering		Sufficient fat on breast and legs to prevent a distinct appearance of flesh through skin.		Lacking in fat covering over all parts of carcass	
PINFEATHERS:	BREAST AND LEGS	ELSEWHERE	BREAST AND LEGS	ELSEWHERE	BREAST AND LEGS	ELSEWHERE
Dressed:						
Pins and hair	Pract. free	Pract. free	Relatively few	Sl. scattering	Numerous	Numerous
Ready-to-Cook:						
Non-protruding pins	Pract. free	Pract. free	Few scattered	Few scattered	Scattering	Scattering
Protruding pins and hair	Free	Free	Free	Free	Free	Free
CUTS AND TEARS: 1/	Free	3"	3"	6"	No limit	
Disjointed bones	1		2		No limit	
Broken Bones	None		1 Non-protruding		No limit	
DISCOLORATIONS: 2/						
Flesh bruises	0	1"	1"	3"	No limit 3/	
Skin bruises	3/4"	1-1/2"	1-1/2"	3"	No limit 3/	
All discolorations	2"	3"	3"	6"	No limit 3/	
FREEZER BURN	Few small (1/8" diameter) pockmarks		Moderate-dried areas not in excess of 1/2" in diameter		Numerous pockmarks and large dried areas	

The quality designations specified herein are not applicable to birds possessing any of the following conditions: dirty or bloody head or carcass, dirty feet or vent, fan feathers or neck feathers or garter feathers, or feed in the crop.

1/ Total aggregate length of all cuts and tears including incision for removal of the crop or its contents.

2/ Maximum diameter of aggregate areas of all flesh bruises, skin bruises, and discolorations.

3/ No limit on size and number of areas of discoloration and flesh bruises if such areas do not render any part of the carcass unfit for food.

STANDARDS EFFECTIVE JANUARY 1, 1950

Figure 5.--Summary of U. S. standards for dressed and ready-to-cook turkeys.

and 3 inches in diameter, respectively. A top-quality bird may have not more than a few small pockmarks (1/8 inch in diameter) resulting from freezer burn.

Grades

The difference between standards of quality and grades is sometimes not understood. Standards of quality, which have been discussed so far in this manual, refer to the quality evaluation of an individual bird. A bird may be classified as A, B, C, or as a reject. Grades usually apply to wholesale lots of poultry, although a grade may be properly applied to an individual bird, in which case "grade" and "quality" would be synonymous. For example, an A Quality bird may properly be labeled U. S. Grade A.

Dressed and ready-to-cook poultry is handled, sold, and traded commercially on the basis of lots. A lot consists of one or more containers which usually hold 12 birds, although many processors pack from 4 to 30 or more birds in a container, depending, of course, on the type of container and the class and size of poultry packed.

Poultry processors generally grade their products on the basis of U. S. standards of quality and frequently label packs with brand names representing qualities comparable to U. S. A, B, and C qualities or various combinations of these qualities.

Since there are human as well as natural elements of variation, grades are set up with tolerances. In the United States grades for dressed and ready-to-cook poultry, any lot of birds composed of one or more containers of the same kind and class of poultry may be designated as U. S. Grade A if at least 90 percent of the birds are of A Quality and the remainder are of B Quality, and no individual container in the lot contains more birds of B Quality than in the proportion of 2 to each 12 birds in the container. Any lot of poultry composed of one or more containers of the same kind and class may be designated U. S. Grade B if not less than 90 percent of the birds in the lot are at least of B Quality and the remainder are of C Quality, and no individual container in that lot contains more C Quality birds than in the proportion of 2 to each 12 birds in the container. Any lot of poultry may be designated as U. S. Grade C if it consists of birds of not less than C Quality. According to the United States grades, when any lot of dressed poultry is graded on the basis of a representative sample, any carcass possessing a dirty or bloody head, dirty feet or vent, fan feathers, neck feathers, garter feathers, or feed in the crop and which is of either A Quality or B Quality excepting for these factors, will be lowered one quality.

The tolerances provided for in the United States grades are applicable only when the individual birds in the lot are not marked with a U. S. grade. When individually grade marked, each bird in the lot must be of the quality shown in the marked grade.

Although weight specifications are not included in the U. S. grades for dressed and ready-to-cook poultry, since weight as such is not a factor of grade, it is recommended that each container of such poultry contain carcasses of the weights specified in tables 1, 2, 3, and 4.

When birds are graded out of bins, the poultry carcass is examined by grasping the shanks of the bird in one hand with the breast up. In this position, the grader can easily observe the breast, wings, and legs, and by a mere twist of the wrist the back of the bird is turned into position to be observed. The various quality factors are appraised and the bird is placed in the proper grade bin.

When birds on a conveyor line are graded, the side of the bird nearest the grader is examined first. The carcass is then flipped around so that the opposite side can be examined. In some instances, the birds are removed as they are graded and placed in the various quality bins or cooling tanks; in other instances, only the A-Quality carcasses are removed and the other qualities are taken off the conveyor line later, or the lower grades, B Quality, C Quality, and the undergrades, are removed by the grader and all that remains on the conveyor line are the Grade A carcasses.

When packaged poultry is presented for grading, it is necessary to open the packages and examine each bird individually or each bird in a representative sample of the lot. If the birds are individually wrapped, it is necessary to remove the wraps so that each carcass may be examined. It is usually difficult to remove the birds from the boxes for grading, especially if the birds are frozen.

The usual practice in examining frozen, box-packed poultry is to examine that portion of the birds that can be seen, without breaking the pack apart. In addition, a sufficient number of boxes should be turned upside down, so that the backs, hips, and backs of wings of the birds can be examined and the cleanliness of the heads, feet, and vents can be observed.

It is very difficult to make a proper examination of barrel-packed poultry. It can be made only by unpacking and examining each bird in the container. If the poultry is frozen, repackaging of the sample examined presents a problem.

Box-packed and barrel-packed poultry is usually graded at terminal markets and generally on the basis of a representative sample drawn from a bulk lot.

Table 1.--Suggested weight specifications of dressed chickens

Class of chickens	Weight range per bird		Weight range per dozen birds	
	Minimum	Maximum	Minimum	Maximum
	:	:	:	:
Broilers or fryers	: None	: 1 lb. 8 oz.	: None	: 18 lbs.
	: Over 1 lb. 8 oz.	: 2 lbs.	: Over 18 lbs.	: 24 lbs.
	: Over 2 lbs.	: 2 lbs. 8 oz.	: Over 24 lbs.	: 30 lbs.
	: Over 2 lbs. 8 oz.	: 3 lbs.	: Over 30 lbs.	: 36 lbs.
	: Over 3 lbs.	: 3 lbs. 8 oz.	: Over 36 lbs.	: 42 lbs.
	: Over 3 lbs. 8 oz.	: 4 lbs.	: Over 42 lbs.	: 48 lbs.
Roasters	: Over 3 lbs.	: 3 lbs. 8 oz.	: Over 36 lbs.	: 42 lbs.
	: Over 3 lbs. 8 oz.	: 4 lbs.	: Over 42 lbs.	: 48 lbs.
	: Over 4 lbs.	: 4 lbs. 8 oz.	: Over 48 lbs.	: 54 lbs.
	: Over 4 lbs. 8 oz.	: 5 lbs.	: Over 54 lbs.	: 60 lbs.
	: Over 5 lbs.	: 5 lbs. 8 oz.	: Over 60 lbs.	: 66 lbs.
	: Over 5 lbs. 8 oz.	: None	: Over 66 lbs.	: None
Capon	: None	: 6 lbs.	: None	: 72 lbs.
	: Over 6 lbs.	: 7 lbs.	: Over 72 lbs.	: 84 lbs.
	: Over 7 lbs.	: 8 lbs.	: Over 84 lbs.	: 96 lbs.
	: Over 8 lbs.	: 9 lbs.	: Over 96 lbs.	: 108 lbs.
	: Over 9 lbs.	: 10 lbs.	: Over 108 lbs.	: 120 lbs.
	: Over 10 lbs.	: None	: Over 120 lbs.	: None
Stags	: None	: 3 lbs.	: None	: 36 lbs.
	: Over 3 lbs.	: 4 lbs.	: Over 36 lbs.	: 48 lbs.
	: Over 4 lbs.	: 5 lbs.	: Over 48 lbs.	: 60 lbs.
	: Over 5 lbs.	: 6 lbs.	: Over 60 lbs.	: 72 lbs.
	: Over 6 lbs.	: None	: Over 72 lbs.	: None
Cocks	: None	: 4 lbs.	: None	: 48 lbs.
	: Over 4 lbs.	: 5 lbs.	: Over 48 lbs.	: 60 lbs.
	: Over 5 lbs.	: 6 lbs.	: Over 60 lbs.	: 72 lbs.
	: Over 6 lbs.	: None	: Over 72 lbs.	: None
Hens or stewing chickens or fowl	: None	: 3 lbs.	: None	: 36 lbs.
	: Over 3 lbs.	: 3 lbs. 8 oz.	: Over 36 lbs.	: 42 lbs.
	: Over 3 lbs. 8 oz.	: 4 lbs.	: Over 42 lbs.	: 48 lbs.
	: Over 4 lbs.	: 4 lbs. 8 oz.	: Over 48 lbs.	: 54 lbs.
	: Over 4 lbs. 8 oz.	: 5 lbs.	: Over 54 lbs.	: 60 lbs.
	: Over 5 lbs.	: None	: Over 60 lbs.	: None

Table 2.--Suggested weight specifications of dressed turkeys

Class	Weight range per bird	
	Minimum	Maximum
Turkey fryers	None	6 lbs.
	Over 6 lbs.	8 lbs.
	Over 8 lbs.	10 lbs.
Young hen turkeys or young tom turkeys	None	6 lbs.
	Over 6 lbs.	8 lbs.
	Over 8 lbs.	10 lbs.
	Over 10 lbs.	12 lbs.
	Over 12 lbs.	14 lbs.
	Over 14 lbs.	16 lbs.
	Over 16 lbs.	18 lbs.
	Over 18 lbs.	20 lbs.
	Over 20 lbs.	22 lbs.
	Over 22 lbs.	24 lbs.
	Over 24 lbs.	None
Mature or old hen turkeys and mature or old tom turkeys	None	10 lbs.
	Over 10 lbs.	15 lbs.
	Over 15 lbs.	20 lbs.
	Over 20 lbs.	None

Table 3.--Suggested weight specifications of dressed ducks, geese, guineas, squabs, and pigeons

Kind of poultry	Weight range per bird		Weight range per dozen birds	
	Minimum	Maximum	Minimum	Maximum
Ducks (all classes)	None	4 lbs.	None	48 lbs.
	Over 4 lbs.	5 lbs.	Over 48 lbs.	60 lbs.
	Over 5 lbs.	None	Over 60 lbs.	None
Geese (all classes)	None	8 lbs.	None	96 lbs.
	Over 8 lbs.	10 lbs.	Over 96 lbs.	120 lbs.
	Over 10 lbs.	None	Over 120 lbs.	None
Guineas (all classes)	None	1 lb. 8 oz.	None	18 lbs.
	Over 1 lb. 8 oz.	2 lbs. 4 oz.	Over 18 lbs.	27 lbs.
	Over 2 lbs. 4 oz.	None	Over 27 lbs.	None
Squabs and pigeons	None	8 oz.	None	6 lbs.
	Over 8 oz.	11 oz.	Over 6 lbs.	8 lbs. 6 oz.
	Over 11 oz.	14 oz.	Over 8 lbs. 6 oz.	10 lbs. 8 oz.
	Over 14 oz.	None	Over 10 lbs. 8 oz.	None

Table 4.--Suggested weight specifications of ready-to-cook poultry

Kinds and classes of poultry	Weight range per bird	
	Minimum	Maximum
Broilers or fryers	None	1 lb. 8 oz.
	Over 1 lb. 8 oz.	2 lbs.
	Over 2 lbs.	2 lbs. 8 oz.
	Over 2 lbs. 8 oz.	3 lbs.
	Over 3 lbs.	3 lbs. 8 oz.
Roasters	Over 2 lbs. 8 oz.	3 lbs.
	Over 3 lbs.	3 lbs. 8 oz.
	Over 3 lbs. 8 oz.	4 lbs.
	Over 4 lbs.	4 lbs. 8 oz.
	Over 4 lbs. 8 oz.	5 lbs.
Hens or stewing chickens or fowl	Over 5 lbs.	None
	None	2 lbs.
	Over 2 lbs.	2 lbs. 8 oz.
	Over 2 lbs. 8 oz.	3 lbs.
	Over 3 lbs.	3 lbs. 8 oz.
	Over 3 lbs. 8 oz.	4 lbs.
	Over 4 lbs.	4 lbs. 8 oz.
	Over 4 lbs. 8 oz.	5 lbs.
Cocks or old roosters	Over 5 lbs.	5 lbs. 8 oz.
	Over 5 lbs. 8 oz.	None
	None	2 lbs. 8 oz.
	Over 2 lbs. 8 oz.	3 lbs. 8 oz.
	Over 3 lbs. 8 oz.	4 lbs. 8 oz.
Turkeys and geese (all classes)	Over 4 lbs. 8 oz.	5 lbs. 8 oz.
	Over 5 lbs.	None
	None	4 lbs.
	Over 4 lbs.	6 lbs.
	Over 6 lbs.	8 lbs.
	Over 8 lbs.	10 lbs.
	Over 10 lbs.	12 lbs.
	Over 12 lbs.	14 lbs.
Ducks (all classes)	Over 14 lbs.	16 lbs.
	Over 16 lbs.	18 lbs.
	Over 18 lbs.	20 lbs.
	Over 20 lbs.	None
	None	3 lbs.
Guineas (all classes)	Over 3 lbs.	3 lbs. 8 oz.
	Over 3 lbs. 8 oz.	4 lbs.
	Over 4 lbs.	None
	None	12 oz.
Pigeons (all classes)	Over 12 oz.	1 lb.
	Over 1 lb.	1 lb. 4 oz.
	Over 1 lb. 4 oz.	1 lb. 8 oz.
	Over 1 lb. 8 oz.	None
Pigeons (all classes)	None	6 oz.
	Over 6 oz.	10 oz.
	Over 10 oz.	14 oz.
	Over 14 oz.	None

The proficient grader must evaluate the carcass at a glance, keeping in mind each of the quality factors, and he must make split-second decisions as to these factors and place the carcasses in the various quality grades.

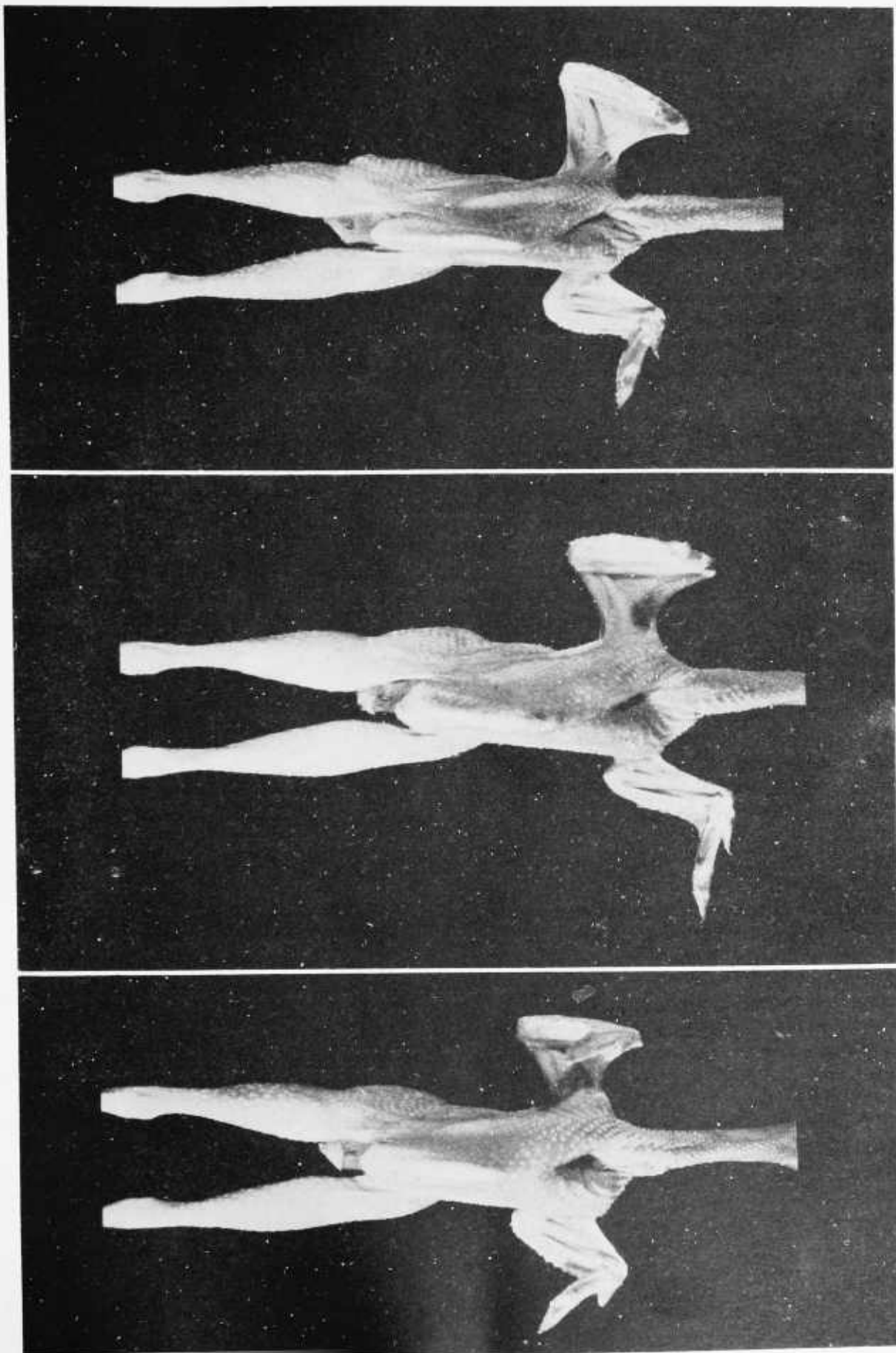


Figure 6.--Young chicken carcasses: (Left to right) A Quality; B Quality; and C Quality.

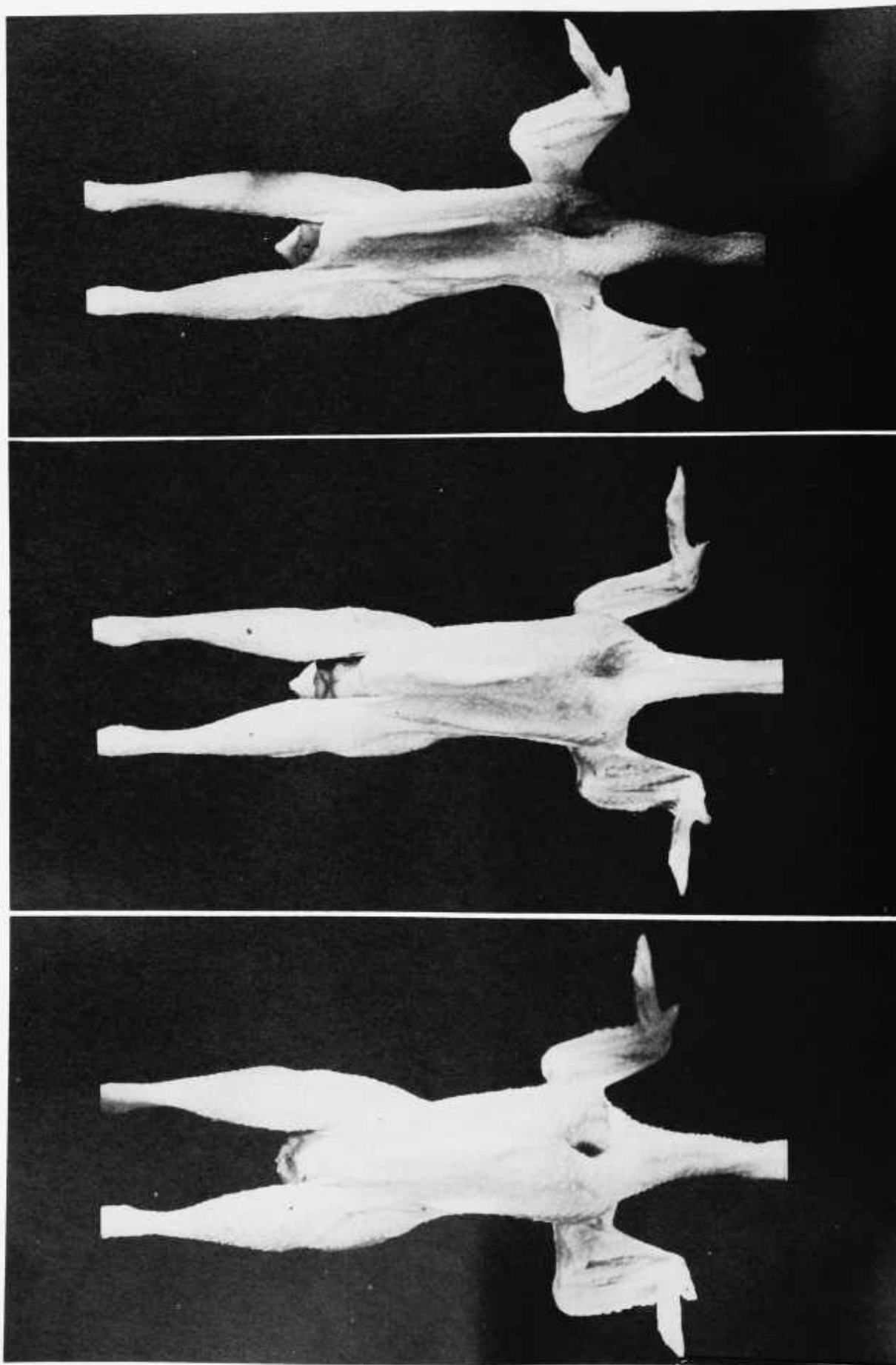


Figure 7.--Hen carcasses: (Left to right) A Quality; B Quality; and C Quality.

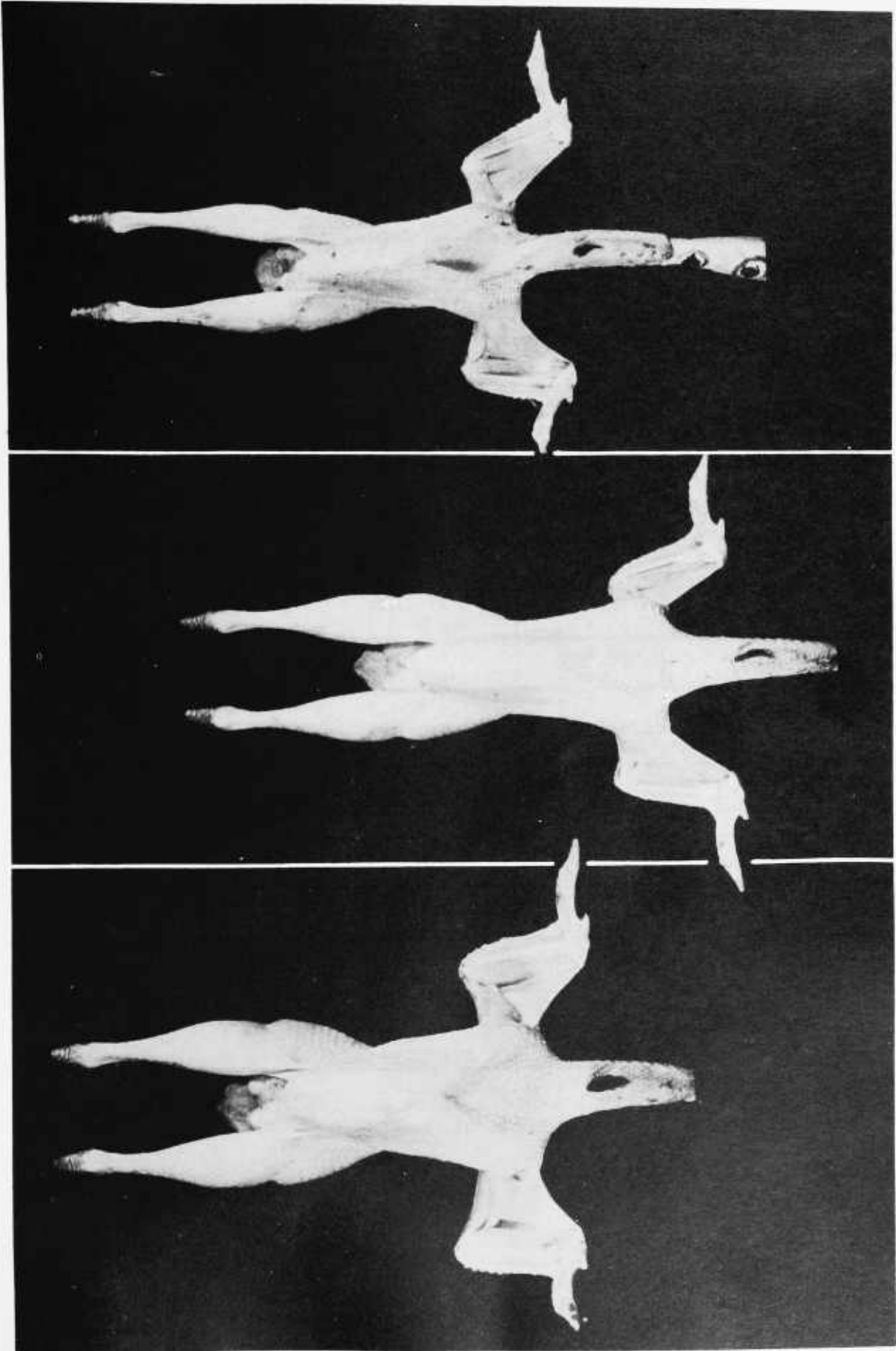


Figure 8.---Tom turkey carcasses: (Left to right) A Quality; B Quality; and C Quality.

Laboratory Forms

Laboratory No. ____--Conformation and Fleshing

Name _____ Kind _____

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
1. Conformation <u>1/</u>	:	:	:	:	:	:	:	:	:
2. Fleshing <u>1/</u>	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
1. Conformation	:	:	:	:	:	:	:	:	:
2. Fleshing	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
1. Conformation	:	:	:	:	:	:	:	:	:
2. Fleshing	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

1/ Use A, B, C, or R in each space provided for each bird opposite the quality factor. R means reject.

Laboratory No. ____ --Fat Covering and Pinfeathers

Name _____ Kind _____

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
3. Fat covering <u>1/</u>	:	:	:	:	:	:	:	:	:
4. Pinfeathers <u>1/</u>	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
3. Fat covering	:	:	:	:	:	:	:	:	:
4. Pinfeathers	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:	:
3. Fat covering	:	:	:	:	:	:	:	:	:
4. Pinfeathers	:	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:	:

1/ Use A, B, C, or R in each space provided for each bird opposite the quality factor. R means reject.

Laboratory No. ____--Cuts and Tears; Discolorations; Freezer Burn

Name _____ Kind _____

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:
5. Cuts and tears <u>1/</u>	:	:	:	:	:	:	:	:
6. Discolorations <u>1/</u>	:	:	:	:	:	:	:	:
7. Freezer burn <u>1/</u>	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:
5. Cuts and tears	:	:	:	:	:	:	:	:
6. Discolorations	:	:	:	:	:	:	:	:
7. Freezer burn	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:

Lot No. _____ Class _____

Bird No.	:	:	:	:	:	:	:	:
5. Cuts and tears	:	:	:	:	:	:	:	:
6. Discolorations	:	:	:	:	:	:	:	:
7. Freezer burn	:	:	:	:	:	:	:	:
COMMENTS	:	:	:	:	:	:	:	:

1/ Use A, B, C, or R in each space provided for each bird opposite the quality factor. R means reject.

Laboratory No. ____ --Combining All Factors: Dressed or Ready-to-Cook Poultry

Name _____

Lot No. _____ Kind _____

Bird No.	Class	Condition	Confor- mation	Flesh- ing	Fat cover- ing	Pin- feathers	Cuts and tears	Dis colora- tions	Freezer burn	Final grade
1.	:	:	:	:	:	:	:	:	:	:
2.	:	:	:	:	:	:	:	:	:	:
3.	:	:	:	:	:	:	:	:	:	:
4.	:	:	:	:	:	:	:	:	:	:
5.	:	:	:	:	:	:	:	:	:	:
6.	:	:	:	:	:	:	:	:	:	:
7.	:	:	:	:	:	:	:	:	:	:
8.	:	:	:	:	:	:	:	:	:	:
9.	:	:	:	:	:	:	:	:	:	:
10.	:	:	:	:	:	:	:	:	:	:

1/ Use A, B, C, or R (reject).

PART IV

OFFICIAL GRADING AND INSPECTION PROGRAMS

The United States Department of Agriculture has for more than 20 years offered the poultry industry official grading and inspection services on a voluntary basis. These services have been carried on under authority of Congressional acts which have provided that fees shall be charged users of the services to cover costs.

The purpose of Part IV is to acquaint the student grader with the manner in which these service programs are furnished to the poultry industry.

The Bases for Grading and Inspection Services

Poultry grading service is available to the industry on two bases: One is the fee basis (cost per unit or per hour); and the other is the resident or continuous grading basis.

Fee grading is performed on the basis of requests from applicants for the grading of a particular lot or carload of poultry. Requests for this type of service are usually made irregularly and the charges for the service are based on the amount of product graded or on the time consumed in performing the service. Most of the fee-grading work is done at the terminal markets where impartial certification of quality or condition is desired. However, some service is rendered to shippers and processors on a fee basis as required primarily in purchase contract specifications.

Resident or continuous grading is performed by graders who are stationed in the applicant's processing plant and are available at all times to perform grading service at the plant. Most of the resident grading is performed in processing plants at shipping points within the more concentrated areas of production, although some processors and distributors at terminal markets or major distribution centers also use resident or continuous grading service. This type of service is provided on a contract basis and the costs include an amount equal to the salary of the grader plus an additional charge based on the volume of product handled in the plant to cover supervisory and administrative costs.

Grading generally involves the sorting of products according to quality and size, but it also includes the determination of the class and condition of products. For poultry, grading may be for determining class, quality, quantity, or condition, or for any combination of these factors. The revised poultry regulations provide a new service with respect to condition, in that the service may be limited to observation of poultry

during processing and certification that it has been dressed in accordance with the minimum standards for sanitation, facilities, and operating procedures in official plants (plants which are approved as meeting the facilities and sanitary requirements of the regulations and in which grading or inspection service is performed).

Grading for quality can be accomplished by examining each carcass in the lot, or by examining a representative sample of the lot of poultry to be graded. Only poultry of A Quality or B Quality that is graded on an individual bird basis may be individually marked with an official grade mark.

The term "inspection" as used in the poultry regulations refers to any inspection of poultry during eviscerating operations to determine the condition of such poultry and its healthfulness and fitness for human food, or the condition and wholesomeness of any edible poultry product at any stage of the preparation or packaging in the official plant where inspected and certified, or the condition and wholesomeness of any previously inspected and certified product, if the product has not lost its identity as an inspected and certified product. In addition, inspection means the determination of the condition of dressed poultry as it applies to the processing, handling, or packaging of the product. In the performance of inspection service, each poultry carcass is examined as it is being eviscerated and the carcasses considered as fit for consumption are passed for human food, and those that are unfit, are condemned and denatured. Post-mortem inspections are made by veterinarians or by qualified laymen under the supervision of veterinarians.

Inspection service is rendered almost entirely in official plants on a contract basis.

Regulations Governing Grading and Inspection

Poultry-grading and inspection services of the United States Department of Agriculture are permissive, in that individuals, firms, or governmental agencies that desire to utilize these services may request them of their own volition. Services are performed on the basis of the regulations governing the grading and inspection of poultry and edible products thereof. These regulations have been developed in cooperation with the industry, including all affected or related groups such as health and marketing officials, producers, processors, and consumers, as well as on the advice of inspection and grading officials throughout the country.

Programs Offered

The various programs and services which are available are listed in the regulations and any interested person may use any one or more of

the services if he so desires. The following kinds of services are available:

1. Grading of live poultry.
2. Certification of dressed poultry produced under USDA sanitary standards.
3. Inspection of dressed poultry that is further prepared as ready-to-cook poultry.
4. Grading of dressed poultry.
5. Grading of ready-to-cook poultry.
6. Inspection of poultry for canning.

Any of the above-mentioned services may be performed in official plants but only certain of these services are offered at terminal markets and at other than official plants. The sanitation program for dressed poultry and inspection service is available only at official plants. Although the grading of dressed and ready-to-cook poultry is permitted at other than official plants, such poultry may be individually grade-marked only if it originated in an official plant and is graded on an individual bird basis. Only ready-to-cook poultry that has been officially inspected for condition and wholesomeness and is properly identified as an inspected product can be graded for quality. Official inspection (either Federal or other acceptable inspection) is likewise required as a prerequisite to grading ready-to-cook poultry in official plants.

Most of the poultry that is graded at terminal markets or on a fee basis generally is graded on a representative sample basis and usually is not grade-marked. The covering certificate usually is all that is needed by the applicant for the service as evidence of the quality or condition of the product examined.

The grading and grade labeling of poultry at the time of processing are being encouraged, and more and more of the grading is being done in official plants at the shipping points.

Certain restrictions placed on the performance of services in official plants are designed to assure that any product which bears a grade mark or inspection mark has been produced under sanitary conditions and that the product is, in fact, as stated on the respective marks. Section 70.4 of the regulations requires that only dressed poultry which was processed in accordance with the sanitary requirements may be graded or inspected. In order to effectuate this requirement, dressed poultry from nonofficial plants may not be brought into official plants, except under certain conditions under which the product can be adequately segregated:

And provided, That no processing of such product is carried on. Another provision under this section requires that all the poultry that is dressed in an official plant shall be prepared in accordance with the sanitary requirements of the regulations.

Applicable to official plants operating under inspection service is a requirement that all poultry that is eviscerated in the plant shall be processed in a sanitary manner and while continuous inspection for condition and wholesomeness is not required, an inspector or governmental (Federal or State) grader must be on duty at all times that plant operations are carried on. This is for the purpose of effecting adequate segregation of inspected and noninspected products, controlling official inspection and grade marks, and supervising the sanitation during processing operations.

A further requirement under section 70.4 of the regulations is that, in plants utilizing the service of grading for quality, a majority of the grader's time shall be spent in grading for quality on the basis of the U. S. standards. This requirement tends to keep the grader's skills properly in line while applying the official quality standards.

The regulations specify who may perform the grading and they also set forth the general requirements, such as licensing, employment, and duties of a grader. Graders may be either Federal or State employees or other licensed individuals, under performance bond, whose employment is not specified. Inspectors, on the other hand, are in all instances civil employees of either the Federal government or of State governments.

How to obtain grading service is explained in section 70.6 of the regulations. This section outlines the procedure for an applicant to follow in obtaining service, either at a terminal market on an intermittent fee basis or on a continuous or contract basis in an official plant. The latter type of service involves a written application for service (signed contract form); an initial survey of the plant, submission of drawings of the plant layout (blueprints), including floor plans, locations of principal pieces of equipment, floor drains, hand-washing facilities, hose connections for clean-up purposes, and the routes of products through the plant; approval of the drawings and final survey of the plant; and installation of a grader.

Sanitary Requirements

Although the requirements as to sanitation, facilities, and operating procedures have been applicable to plants under poultry inspection service for many years, the sanitary standards contained in section 70.39 of the regulations first became applicable on July 1, 1951, to poultry dressing operations as well as to all related rooms used in poultry-processing operations.

Prior to July 1, 1951, many of the plants under inspection were comprised of the eviscerating and packing rooms and other auxiliary rooms that served the eviscerating operations in the plant. In most cases, the feeding stations, the killing and picking rooms, and other rooms used solely for the production of dressed poultry were considered as being outside the limits of the official plant and thus they were not subject to the sanitary requirements. Since the new regulations became effective, July 1, 1951, feeding stations, killing and picking rooms, and all other rooms that are used in conjunction with poultry-processing operations under inspection or grading are included as a part of the official plant and must comply with the sanitary standards.

The sanitary requirements are divided into three main parts, as follows:

1. Buildings and plant facilities.
2. Equipment and utensils.
3. Maintenance of sanitary conditions and precautions against contamination of products.

The first two parts specify what is required for a plant to comply as an official plant, and the third part sets forth the operating procedures and steps necessary for processing to be in conformity with the sanitary standards.

The sanitary provisions of the regulations are considered as the minimum requirements necessary to produce clean and sanitary poultry food products. They are adaptable to small as well as large poultry-processing operations. They are designed to provide for processing operations to be conducted in buildings that are capable of being kept clean, and free from rodents and other vermin, dust, and other conditions that would contaminate food products. Floors and walls in processing rooms must be impervious to moisture, and be smooth and suitable for easy and thorough cleaning. The drainage and plumbing systems must be adequate to dispose of water and other wastes resulting from processing operations, be properly installed, and be equipped with approved traps to prevent the development of health hazards. The equipment used in processing operations must be of metal or other impervious material and be constructed and so placed as to permit thorough cleaning. The operating procedures are designed so that they will be practicable and at the same time capable of producing clean, sanitary poultry under conditions that will conserve quality and prevent deterioration and contamination of the product.

Packaging and Labeling

Poultry packaging, insofar as official grading and inspection are concerned, is treated from two points of view. One deals with the adequacy of packaging from the standpoint of protecting the product from contamination

and minimizing quality deterioration and the other is related to the informational statements on the packages.

Packaging is covered very briefly in the sanitary standards by requirements that the liners of containers shall be water-vapor-resistant and remain intact when moistened by the product; that they shall adequately protect the product from contamination; and that protective coverings for containers shall be adequate to protect the product in the plant and as it is distributed from the plant, under whatever means are used in transporting the product.

From the standpoint of informational statements on packages that bear inspection or grade marks, the regulations require that the true name of the product be shown on the package. In addition, the package shall bear the name and address of the packer or distributor and shall not bear any statement that is false or misleading. All packaging materials and labels that bear official identification must be approved by the Production and Marketing Administration prior to use.

Labeling

Section 201 of the regulations contains examples of official identification marks which may be used to label poultry products individually that have been graded or inspected or both inspected and graded.

A shield design label, used as the official grade mark, shall indicate the class of the poultry or whether it is "young," or "mature" (or "old"), whether the poultry is dressed or ready-to-cook, and the U. S. grade. It shall also bear such a phrase as "Federal-State Graded" or "Government Graded," or a similar statement. The grade mark for ready-to-cook poultry may be used only when the product is identified as having been inspected by Federal inspectors or by inspectors of any other inspection system approved by the Production and Marketing Administration.

The inspection mark is in the form of a circle which contains the wording "Inspected for Wholesomeness by U. S. Department of Agriculture."

The combined inspection and grade mark that is used on ready-to-cook poultry to show that it has been both inspected and graded is in the form of a shield within a circle. The wording is essentially the same as that contained in the separate grade and inspection marks.

The label that is approved for use in marking bulk packages of dressed poultry which has been certified as having been produced under USDA sanitary standards is in the form of a rectangle and contains the wording "Dressed Poultry -- Processed Under USDA Sanitary Standards -- Not USDA Graded for Quality or USDA Inspected for Wholesomeness." In addition, the labels must bear a lot number, indicating the day of the year the product was packed, or be numbered serially.

All official identification marks shall also contain the plant number of the official plant where the product was packed if the number is not shown elsewhere on the package or packaging material.

The official identification marks may be printed on the consumer packages of the product or on paper inserts to be placed in the containers or on metal or paper tags that are affixed to the bird, usually to the web of the wing.

Administration of Programs

The official grading and inspection programs are administered by the Inspection and Grading Division of the Poultry Branch, Production and Marketing Administration, U. S. Department of Agriculture. The service programs are performed under the direction and supervision of the national, regional, circuit, and State supervisory organization. The primary duties of the supervisory staff are: (1) To effect uniformity of application of the services in the field; (2) to determine that the provisions of the regulations governing these services are complied with; (3) to see that the grade standards are properly interpreted and applied; and (4) that the post-mortem examinations of poultry are adequate.

Grading in official plants is performed by licensed graders who are stationed in these plants as "resident graders." Such graders are either federally or State employed, or are bonded licensees who are employed by the commercial firm.

Plant inspectors who make post-mortem examinations in official plants are for the most part Federal veterinarians. However, the regulations provide that they may be State employed and may be lay inspectors as well as veterinarians. A large number of laymen are used as processing inspectors in canning plants, and a few lay inspectors are employed in post-mortem work.

Cooperative Agreements

Grading and inspection services are conducted on the basis of cooperative agreements between the Production and Marketing Administration and cooperating agencies in the various States. These agreements set forth the responsibilities of both PMA and the cooperating parties. There are two main types of agreements, called State Trust Fund and Federal Trust Fund agreements. Under the State Trust Fund agreement the fees charged are collected by the State; the contracts for service are between the State and the individual firms and the plant graders are State employees or bonded licensees of the firm. PMA is reimbursed by the cooperating agency to cover the cost of Federal supervision of the program. Under the Federal Trust Fund agreement the contracts for services are between PMA and the individual firms, the fees are collected by PMA, most employees doing grading work are Federal or else bonded employees of the firms, and the State is paid an amount to cover the costs which it incurs in performing grading work and supervision.

Cooperative agreements covering grading services only are of both types, although a great majority of them are of the Federal Trust Fund type.

Poultry inspection is conducted under a master agreement (the same kind of agreement is used in all States) of the Federal Trust Fund type. However, on July 1, 1951, PMA issued instructions which outline policy and procedures for setting up Federal-State inspection service under a State Trust Fund agreement.

Contracts for Service in Official Plants

Resident grading service in official plants is provided on the basis of written applications on approved forms which, when duly executed by the processing plant and PMA or the cooperating supervisory agency, become contracts for providing grading service. Under these contracts the applicant agrees to comply with the regulations governing grading and inspection work and in addition the applicant agrees to pay the full costs of the service covered by the contract. PMA and the cooperating agencies, in turn, agree to provide an adequate number of graders to perform the service; and they exercise sole discretion as to whether or not the graders are to be Federal or State employees or a licensed employee of the applicant. The contract provides the conditions under which the service can be discontinued, and it provides that federally employed graders shall confine their activities to those duties necessary for the conduct of the grading service and such closely associated activities as may be approved by PMA, with the stipulation that in no instance will the federally employed grader assume the duties of plant management.

Poultry inspection is likewise conducted in official plants on the basis of a written application. This application, when duly executed, becomes what is commonly called a contract for service. Under this contract the applicant agrees to comply with the regulations and also to pay the costs incurred in performing the service covered by the contract. Furthermore, it provides that the applicant shall furnish such stenographic and clerical help as may be necessary in typing certificates and handling correspondence in connection with the service covered by the contract. The contract also specifies the manner in which it may be terminated.

Costs of the Service

The charges for grading and inspection service are necessarily changed from time to time as the costs for performing these services change. The fees and charges listed in this manual were in effect as of August 1, 1951.

The costs involved in rendering grading service in an official plant include the following:

1. A charge of \$75 for the initial survey incident to approving the plant.
2. A charge for each additional survey on the basis of the actual cost to PMA of the travel and per diem incurred in making the survey, and the actual time consumed in making the survey at the rate of \$3.60 per hour.
3. A charge of \$50 to cover the costs incurred in connection with inaugurating the grading service and the assignment of graders to the plant and \$25 for each additional grader or replacement of a previously assigned grader: Provided, That no charge will be made for temporary relief graders or for replacement of a grader who is a Federal employee when the replacement is made by PMA other than at the request of the applicant.
4. A charge equal to the salary costs paid to each grader assigned to the applicant's plant by PMA, including earned annual leave and if necessary earned sick leave; however, no charge is made for salaries for any assigned graders at the designated plant while temporarily assigned by PMA to perform service at other than the designated plant.
5. A charge equal to the salary costs, travel expenses, and per diem paid by PMA to any graders whose services are required for relief service when the regular graders are on annual or sick leave.
6. A charge for the actual cost to PMA of any travel and per diem incurred by the graders assigned to the plant while in the performance of grading service rendered the applicant.
7. A charge at the discretion of PMA of an amount not in excess of the actual costs of travel (including the costs of moving household goods and dependents) and per diem with respect to each grader who is transferred from an official station to the designated plant.
8. An administrative service charge based on the aggregate weight of the total monthly volume of all products handled in the plant. These charges range from \$25 for weights not in excess of 20,000 pounds to a maximum of \$75 for weights of more than 700,000 pounds.

The costs of inspection service in an official plant include travel expenses and per diem paid to inspectors assigned to the plant, as well as a charge of \$116 per 40-hour work week for each post-mortem inspector assigned to the applicant, \$98 per week per inspector for inspection of canning and other processing of poultry food products, and \$75 for the initial survey of the plant. No charge is made for the final survey,

although additional surveys are charged for at an hourly rate for the time consumed in making any additional surveys and for the travel costs involved. In addition, an amount equal to 7 percent of the charges previously listed is charged to cover overhead, administrative, and other costs and expenses incurred by the Production and Marketing Administration.

Although the cost items enumerated above may give the impression that inspection and grading service costs are high, actually the charges are very nominal when considered from the standpoint of the cost per pound of product graded or inspected.

In 1950, the cost of poultry inspected, computed on the basis of total inspection costs and total poundage inspected, was only 1/5 of a cent per pound of poultry. The estimated cost of grading poultry in an official plant, processing a volume of product somewhat higher than average, has been figured at approximately 1/16 of a cent per pound.

Cost of Grading on Fee Basis

For each grading of any lot of poultry, whether live, dressed, or ready-to-cook, the following fees shall be applicable:

For 500 pounds or less-----	\$ 1.50
For 501, to 1,500 pounds, inclusive-----	2.25
For 1,501 to 3,000 pounds, inclusive-----	3.00
For 3,001 to 6,000 pounds, inclusive-----	4.00
For 6,001 to 10,000 pounds, inclusive-----	6.00
For 10,001 to 20,000 pounds, inclusive-----	10.00
For each additional 10,000 pounds or fraction thereof in excess of 20,000 pounds-----	3.00

However, if the fees listed above are inadequate to cover the cost of performing the service then charges shall be made at the rate of \$3.60 per hour for the time actually required.

PART V

LEGISLATION AFFECTING GRADING AND MARKETING OF POULTRY

There are many Federal, State, and municipal laws and regulations affecting grading and marketing. Only those that apply most directly or indirectly to grading poultry will be described or listed here.

Federal Laws

The Federal Food, Drug, and Cosmetic Act of 1938, and regulations for its enforcement by the Food and Drug Administration of the Federal Security Agency are extremely important. This act was designed to prohibit the movement in interstate commerce of adulterated and misbranded food, drugs, devices, and cosmetics, and for other purposes.

The Packers and Stockyards Act of 1921 was enacted to regulate interstate and foreign commerce in livestock, livestock products, dairy products, poultry, poultry products, and eggs, and for other purposes. It was amended in 1926, 1938, 1939, and 1942. Whereas the Food and Drug Act applies mostly to processed poultry in its effect on the public health, the Packers and Stockyards Act of 1921 is designed primarily to protect producers and consumers against various unfair, deceptive, and fraudulent practices and devices in interstate and foreign commerce. The regulations under the Packers and Stockyards Act are enforced by the U. S. Department of Agriculture.

State and Municipal Laws

Like other farm products, poultry is produced in areas both distant from and near to the large consuming centers; therefore, it moves in interstate commerce. The normal and efficient flow of market poultry from producer to consumer could be readily hampered by an individual State law designed to protect the poultry industry within that particular State by provisions that do not apply to all poultry, regardless of origin. Some States have enacted legislation to help advance the industry and other States have no laws concerning poultry processing and marketing. There are many differences existing in the State laws that contribute to confusion in the poultry-marketing situation.

From an analysis of the laws which affect poultry grading and marketing, the various State laws may be grouped into the following categories:

1. Food and drug laws.--All States have patterned their pure food laws after the Federal Food and Drug Act of June 1906, or the Federal Food, Drug, and Cosmetic Act of 1938. In addition to the general provisions of the State food and drug laws, some States have certain sections which apply specifically to market poultry.
2. Licensing laws.--Many of the States have laws requiring poultry dealers to obtain a license before engaging in buying and selling poultry. Some States require a different type of license for poultry-processing plants or slaughterhouses.
3. Standardization laws.--Some States have legislation authorizing State departments of agriculture to establish and maintain standards and grades for farm poultry. A few of the States have established standards and grades for some or all classes of poultry. In most States, standards and grades are voluntary and are usually patterned after Federal standards and grades, but in one or more States grading and grade labeling of poultry offered in retail channels are compulsory.
4. Cold storage laws.--These laws usually place a limit on the time that food may be held in storage, and they also require that items of food that have been in cold storage for a specified period of time must be labeled as such and not advertised as fresh.
5. Laws pertaining to proof of ownership of poultry in transit.--In some States it is illegal to transport poultry unless it is accompanied by a bill of sale, or a memorandum signed by the vendor. Producers transporting their own poultry are usually exempt. Legally authorized common carriers are exempt in most cases. This is primarily to guard against thieving.
6. Limitations on hours of business.--Several States provide legislation that makes it unlawful to sell or offer for sale during certain periods of the day or on certain days.
7. Inspection laws.--A few of the laws require inspection before poultry may be displayed, delivered, or offered for sale in certain forms. Other laws provide for the establishment of voluntary inspection service.
8. State laws requiring that poultry be sold by weight.--Some States have laws to the effect that poultry shall be sold by weight.
9. Laws affecting the sale of imported poultry.--Some counties, cities, and other municipalities have laws or ordinances pertaining to the licensing of buyers, sellers, and processors of poultry, as well as laws pertaining to public health and sanitation.

PART VI

PLANNING THE GRADING SCHOOL

Planning is an extremely important factor in determining the success or failure of a grading school. A well-planned, well-organized, smooth-running school is not only a pleasure to attend but is an excellent medium for promoting desirable methods and practices for application to grading and related subjects. Part VI of this manual is intended as a guide and an aid to those who desire to organize and conduct a poultry grading school.

Location and Time of the School

In planning for a grading school, the choice of location is important. The school should be held as nearly as possible in the center of the section or region from which the students are drawn. It should be conducted in a place with adequate space for classes and laboratories. Either the essential equipment and facilities should be available, or supplied by the sponsors of the school. The space needed will depend on the number of students to be accommodated, the number of instructors available, the equipment and facilities available, and the type of grading (live or processed poultry). The school should also be held in or near a place where room and board can be provided for those in attendance.

It is well to hold the school at a time when the regular work of the students is not too demanding and when there are not too many other meetings, expositions, or conventions, or special schools under way.

Equipment and Facilities

The following facilities and equipment should be provided of a size and in quantities sufficient to accommodate the number of students and instructors attending the school:

1. A room for lectures and demonstrations.
2. A room for laboratory sessions and demonstrations. For poultry-grading schools, a processing plant where there is enough room for lectures and laboratory practice would be ideal. Live poultry-grading laboratories might be held in the feeding station.

3. Coops or batteries for holding live birds. Tables, racks, or "strings" (cord or rope for hanging dressed birds from ceiling or pipes) for processed birds.
4. Tables and chairs for lecture room.
5. Reflectoscopes, slide and film strip projectors, motion-picture projector (when used), visual scope, screens, and other similar educational facilities.
6. Other facilities, such as manuals, educational material, pads, pencils, and examination papers.
7. Registration blanks, announcements.

Suggested Programs

Suggestions for 2-, 3-, and 4-day schools for graders of dressed or ready-to-cook poultry are outlined below. With variations and rearrangement, these suggestions could be used as a basis for planning the program to cover a 5-day school for graders of processed poultry. Also, with slight variations the suggested programs could be formulated to apply to schools for graders of live poultry.

Suggested 2-day program for a school for processed-poultry grading

First Day of School

Morning

Registration

Program discussion

Structure of the bird

Determining the class of poultry

Determining the condition of poultry

Laboratory study on condition factors

Lunch

Afternoon

Individual-quality grading factors

Conformation and fleshing

Laboratory study on conformation and fleshing

	Discussion period
Evening	USDA grading and inspection programs
	Inspection for wholesomeness
	State grading services

Second Day of School

Morning	Fat covering and pinfeathers
	Laboratory study on fat covering and pinfeathers
	Cuts and tears, discolorations, and freezer burn
	Laboratory study on cuts and tears, discolorations, and freezer burn
Lunch	
Afternoon	Combining all the grading factors
	Laboratory study on combining all the grading factors
	Discussion period
	Examinations

Suggested 3-day program for a school for processed-poultry grading

First Day of School

Morning	Registration
	Program discussion
	Structure of the bird
	Determining the class of poultry
	Determining condition of poultry
	Laboratory study on condition factors

Lunch

Afternoon

Individual-quality grading factors

Conformation and fleshing

Laboratory study on conformation and fleshing

Discussion period

Evening

Educational or recreational program

Second Day of School

Morning

The USDA grading and inspection programs

Fat covering and pinfeathers

Laboratory study on fat covering and pinfeathers

Discussion period

Lunch

Afternoon

Cuts and tears, discolorations, and freezer burn

Laboratory study on cuts and tears, discolorations, and freezer burn

Sanitation in poultry processing

Federal Food and Drug Act

Discussion period

Third Day of School

Morning

Combining all the grading factors

Laboratory study on combining all grading factors

Inspection for wholesomeness

State grading services

Lunch

Afternoon

State and municipal grading and marketing laws

Final review

Examinations, written and oral

Suggested 4-day program for a school for processed-poultry grading

First Day of School

Morning

Registration

Plans for the school

Structure of the bird

Determining the class of poultry

Lunch

Afternoon

Determining condition of poultry

Laboratory study on class and condition factors

Breeding, feeding, and disease as they affect poultry quality

Poultry grading and marketing research

Discussion period

Evening

Educational or recreational program

Second Day of School

Morning

Individual-quality grading factors

Conformation and fleshing

Laboratory study on conformation and fleshing

The Federal Food and Drug Act

Lunch

Afternoon

The USDA grading and inspection programs

State grading services

Fleshing and fat covering

Laboratory study on fleshing and fat covering

Discussion period

Evening

Educational or recreational program

Third Day of School

Morning

Packages and packing

Sanitation in poultry processing

Pinfeathers, cuts and tears, and discolorations

Laboratory study on pinfeathers, cuts and tears, and discolorations

Lunch

Afternoon

Merchandising poultry

Combining all the grading factors

Laboratory study on combining all the grading factors

Inspection for wholesomeness

State and municipal grading and marketing laws

Discussion period

Fourth Day of School

Morning

Market-poultry improvement

Grading poultry

Final review

Laboratory practice

Lunch

Afternoon

Examinations, written and oral.

PART VII

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